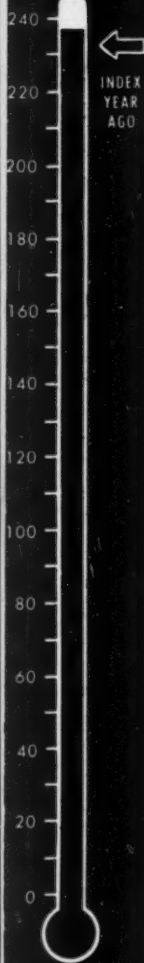


BUSINESS WEEK

WHY ARMAMENT IS
Behind Schedule
PAGE 19



Johnson of National Motor Bearing: Cooling the hot box (page 152)

A MCGRAW-HILL PUBLICATION

MAR. 29, 1952

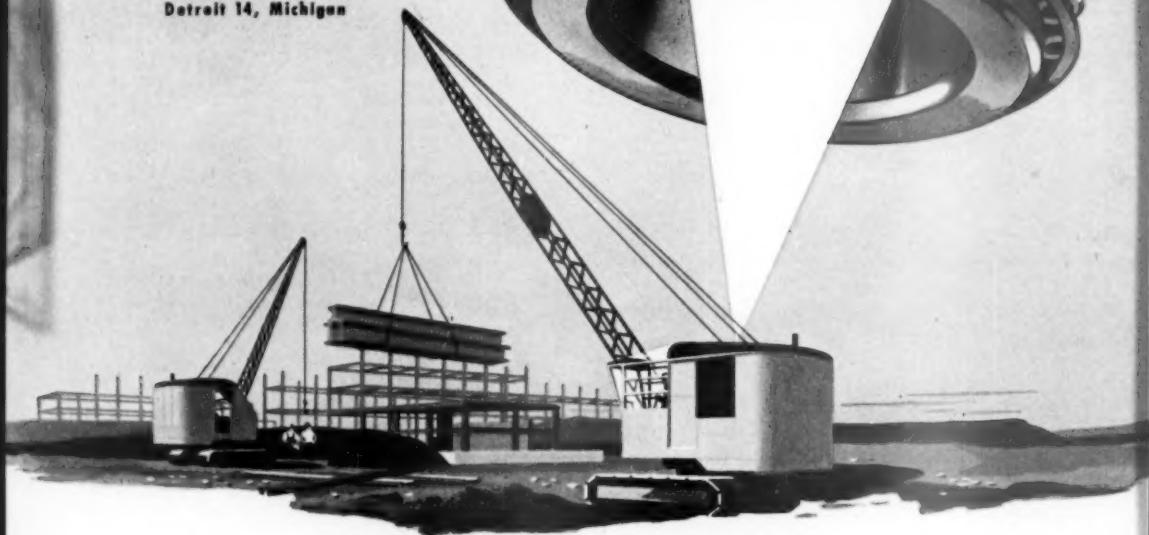
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boosts machine efficiency

From the minute a plant begins to take shape right on through the time it's operating at peak production, bearings can make or break a carefully planned schedule. That's why it's so important to install top-quality bearings—Bower Spher-O-Honed bearings—in your plant equipment. These rugged bearings, incorporating original Bower design improvements plus painstaking production control, are recognized everywhere for their exceptional quality and long-lasting precision. Such basic Bower refinements as spherical roll-heads and flange surface, generous oil groove and precise, honed races are reducing bearing maintenance to a practical minimum on cranes, machine tools, lift trucks—products like yours! It will pay you to standardize on Bower Spher-O-Honed bearings.

THE BOWER ROLLER BEARING COMPANY
Detroit 14, Michigan



BOWER

ROLLER BEARINGS





"Vision is Indispensable to Progress"

They hitched a motor to the plow ...and the Age of Abundance was born

In the early days of the nation, it took 85 people out of every 100 to produce food — today it takes only 15. Some \$12 billion of farm machinery, including 6 million tractors and trucks, spells the difference.

With tractor-drawn plow, one man now tills more land in an hour than two men driving eight horses plowed in a day. A farm worker operating a tractor now seeds 60 acres, in the time it took to seed 15 with a two-horse team. Crops are harvested in less than a quarter the time it took with animal power. Wheat is cut and threshed — corn picked and shucked —

potatoes dug, cleaned, sorted and bagged — and scores of other farming operations performed — all by machine.

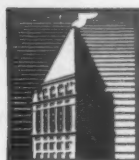
Thus has come about a new age of abundance. Mechanized equipment has both increased the output of food and furthered the use of modern soil management methods to maintain and improve soil productivity.

To the great agricultural implement industry — with its fundamental "grass roots touch" — goes much of the credit for helping the farmer achieve his tremendous capacity to produce. Working together under a free competitive system, farmers and implement makers are adding abundantly to the strength, health and welfare of the nation.

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...for Insects

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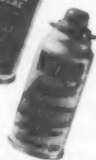
Crown was first to invent the lightweight spray can—named it SPRA-TAINER—and now more SPRA-TAINERS are used than any other propulsion can. Nothing protects your product like SPRA-TAINER's patented "No Side Seam—No Top Seam" construction. Nothing sells your product like SPRA-TAINER's exclusive "Modern Design." And only SPRA-TAINER is supplied in three companion sizes: 12 oz. Large, 6 oz. Tall, 6 oz. Squat.

Look to Crown for continued leadership through new ideas in the design and manufacture of fine cans for almost every use. YOU CAN'T BUY BETTER CANS.

One of America's Largest Can Manufacturers



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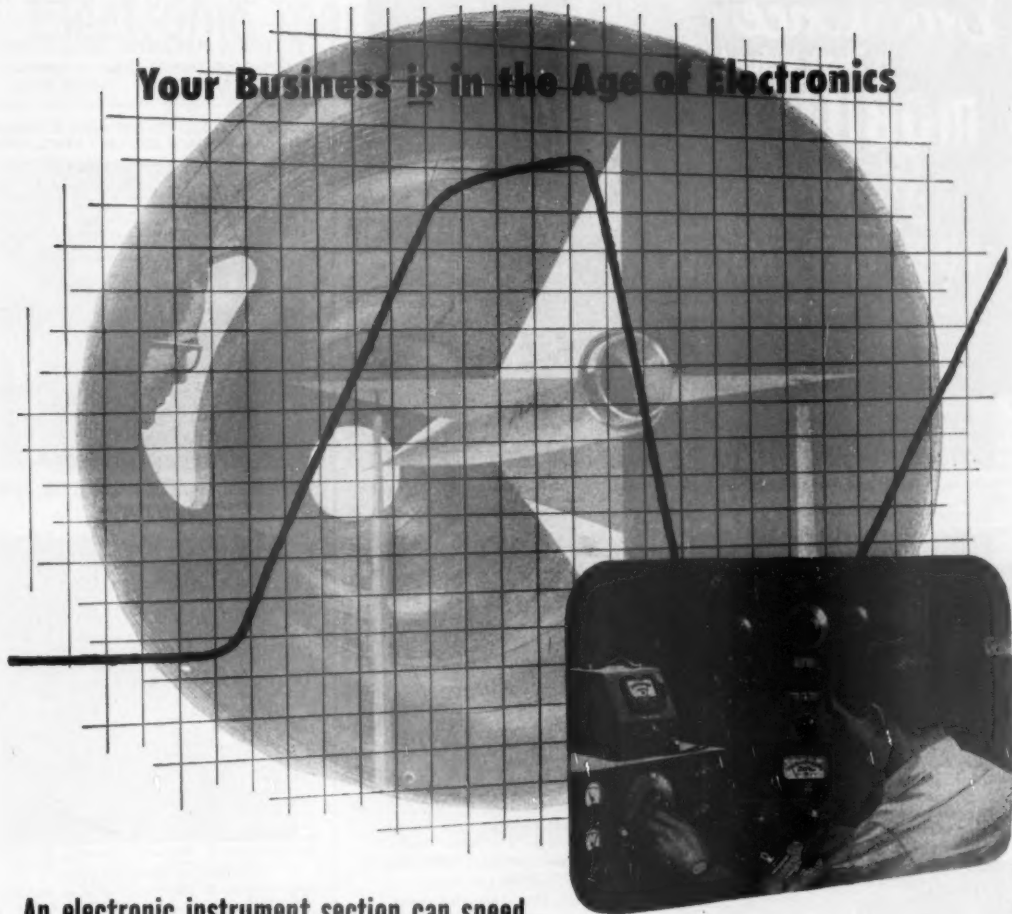
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for speed and accuracy

Experience Proves Their Value! **MOBILIFT** *Stand-Up* **FORK LIFT TRUCKS**

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...Quicker
...They Do More Work**

Across the nation industries agree that MOBILIFT'S 15 years experience in building and improving STAND-UP fork lift trucks assures an efficient, hard-working truck... speedy and maneuverable in tight places.

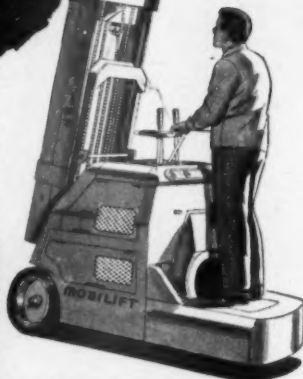
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STAND-UP MODELS IN 2,000, 2,500, 3,000 and 3,500-POUND CAPACITIES are available with 63", 72" and 83" MASTS.
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BUSINESS WEEK • Mar. 29, 1952

Electronic marvels for defense

... by the makers of your Bell telephone



Radar fire control systems for the Navy's biggest guns.



Radar fire control systems for the guns that guard our skies.



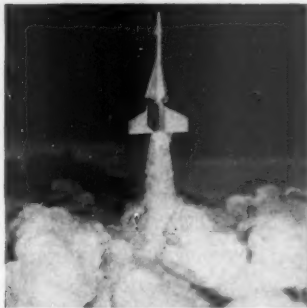
Radar bombing systems for America's biggest planes.



Radar fire control systems for naval anti-aircraft guns.



Multi-channel radio sets for military aircraft of all types.



Electronic control and firing systems for the latest guided missiles.

ELECTRONIC "BRAINS" that direct guns, bombs, and guided missiles to the right target call for much the same production techniques we use in making the electronic "brains" that guide your dial telephone call to the right number.

THAT'S WHY Western Electric, with 70 years of experience as manufacturing unit of the Bell Telephone System, has ready the highly specialized skills now needed to

produce these electronic elements of our national defense. That's why Western Electric, with the help of thousands of subcontractors, large and small, is now turning out quantities of equipment for the Army, Navy and Air Force.

AT THE SAME TIME we are going full speed ahead on our regular job—making telephone equipment to help keep Bell System service going and growing.

Western Electric



A UNIT OF THE BELL SYSTEM SINCE 1882

COMPACTNESS

LOW WEIGHT

*an end result of
special engineering in*



▶ Compactly designed turbine driven by a high-speed series motor provides dependable operation for canister-type vacuum cleaner.



▶ Where intermittent high torque and space economy are important, this specially developed aircraft motor provides distinct advantages.



▶ Space factor in this power unit is minimized by having output shaft at right angles to motor shaft.

Lamb Electric Motors provide minimum weight and space factor because:

1. Every motor is engineered for a particular application.
2. 36 years' experience in motor engineering has taught us where and how much weight can be reduced without interfering with essential electrical requirements.
3. This experience frequently enables us to make product design suggestions which reduce product weight, provide compactness, improve performance and lower cost.

To obtain compactness and low weight requires consideration of the motor in the early stages of product development.

The Lamb Electric Company
Kent, Ohio

THEY'RE POWERING AMERICA'S *Finest* PRODUCTS

Lamb Electric
SPECIAL APPLICATION FRACTIONAL HORSEPOWER **MOTORS**

In BUSINESS this WEEK...

• Kremlin Strategists ...

... and the West's diplomats are locked in a squabble over Germany. Here's what's behind the battle. P. 23

• Fair Traders ...

... are losing friends but influencing Congress. So far, their campaign has been a masterpiece of lobbying. But how much further can it go? P. 36

• Construction Men ...

... have a laboratory in Pittsburgh's new metal-wall buildings. The methods they're developing promise big savings for builders. P. 72

• Company Directors ...

... slowed down dividend payments in January—because of a quirk in the tax law. But that was enough to push the Regional Income Indexes down. P. 106

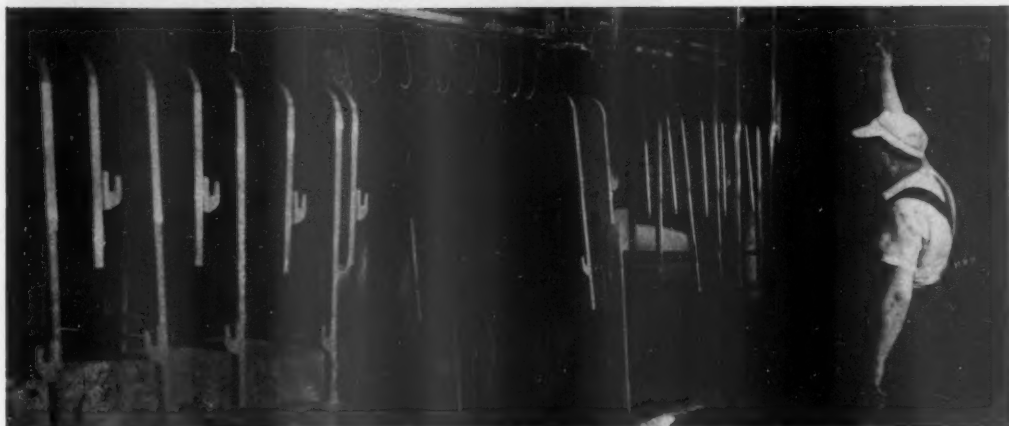
• Greeks ...

... have been famed sailors since Homer's day. They're also mighty sharp in understanding tax laws. The combination has given Stavros Niarchos a fleet of tankers that many a nation would like to call its own. P. 128

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FINISHING

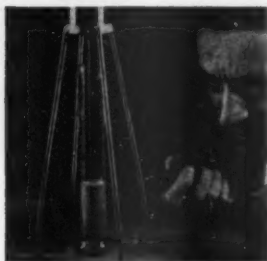


DU PONT CHEMISTS have developed a special DULUX enamel for this manufacturer. It is a . . .

Coat that covers beds in seconds



PROTECTING A \$44,000,000 INVESTMENT. On New York's huge Triborough Bridge, DULUX Metal Protective Finishes are used to combat metal corrosion.



THIS DEVICE helps Du Pont chemists measure and control finish viscosity.



RICH SHEEN of a Du Pont furniture finish breaks down sales resistance.

It takes only a few seconds to flow-coat metal beds for hospitals and hotels with DULUX on this modern, conveyorized production line. And after being bonded to the metal at high temperatures, this outstanding Du Pont formula gives a finish that resists damage from spilled liquids, hard knocks and temperature extremes . . . keeps its sparkling gloss for years.

DULUX for metal furniture is typical of the more than 12,000 finish formulas Du Pont chemists have developed over the last twenty-five years to meet the varied and specialized requirements of industry.

Perhaps a Du Pont finish can help *you* cut production time or cost . . . make your product look better, wear better, sell better. Get expert help on all your finishing problems by contacting the Du Pont sales technician in your area . . . or by writing E. I. du Pont de Nemours & Co. (Inc.), Finishes Div., Wilmington, Del.

Du Pont Industrial Finishes

Chemically engineered to do the job better.



150th Anniversary

Better Things for Better Living
... through Chemistry

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Paste-Proof Paper

PROBLEM...

... wallpaper surfaces that will resist staining from paste.

SOLUTION...

... Pexol®—a special fortified size developed by Hercules for paper makers. Added to the paper pulp during processing, Pexol becomes an integral part of the finished paper, and forms a moisture barrier until paste is dry.

RESULT...

... wallpaper that is easier to hang—that is more economical to produce—that looks better because it provides a better printing surface. Pexol's advantages are available to manufacturers of other types of papers and boards. Today, more paper and board mills use Pexol than all other fortified sizes combined.



Hercules' business is solving problems by chemistry for industry...



STYDGE MARK

... soaps, detergents, rubber, insecticides, adhesives, plastics, paint, varnish, lacquer, textiles, paper, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

HERCULES

HERCULES POWDER COMPANY 968 Market Street, Wilmington, Del.

INCORPORATED
Sales Offices in Principal Cities

BUSINESS OUTLOOK

BUSINESS WEEK

MARCH 29, 1952

A

BUSINESS

WEEK

SERVICE

Makers of many things are getting more metals. And that should be good. Today, however, it isn't an unmixed blessing.

Motives are suspect. A lot of people are yelling, "Politics."

Needs aren't robust. Some manufacturers are gunshy: They've been having too much trouble selling current output.

Timing could backfire. Metal supplies may look easier than they are.

•
"Corrective" steps—steps to ease unemployment and to bolster consumer demand—are coming late in the day. The worst is behind us.

Business—over-all—probably would pick up from here without any help.

•
Controls over the economy have been running about the course that might have been predicted for them.

They were slapped on late. They failed to prevent runaway consumer buying, a sharp price rise, and some hoarding of materials.

When they began to take hold, their grip looked too harsh. The civilian economy already was a little flabby—the natural swing of the pendulum from earlier buying excesses.

And relaxations now could be too sweeping. Business will pick up slowly—without stimulants—through the summer, more rapidly later.

•
Retailers are enjoying the experience of topping a year ago.

Up till now, they have had trouble. Last year the January-February buying splurge telescoped right into an early Easter; it has been hard for stores even to come close to those records.

•
Pre-Easter sales today are matched against 1951 post-Easter totals. Volume is bound to compare well—even with lower prices.

Moreover, it won't be too hard to keep the comparison favorable after the holidays; last spring and summer, department store traffic was no great shakes.

Better-than-year-ago figures will give a psychological lift. That has been a notably lacking business ingredient most of the last year.

•
Employment is going into its seasonal rise. Even without the prospective pickup in business, there should be a gain of something like 3½-million between now and midsummer.

That should at least match last summer's record of 62½-million jobs.

•
Manufacturing employment has held up remarkably well, considering the drop in the civilian sector of the economy.

There still are very nearly 16-million workers holding factory jobs—a figure that has changed little in more than a year.

In hard goods manufacturing—in spite of cutbacks and lagging consumer demand—employment is 100,000 over a year ago. Totalling almost 9-million, it is just a shade under December's postwar peak.

•
Better-than-seasonal gains can be scored this summer in factories turning out soft goods—providing people will buy the stuff.

Here, employment is a quarter-million below a year ago—despite fair gains in the number of jobs in both chemicals and fuels.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
MARCH 29, 1952

The major declines are in textiles and apparel. Their employment is down more than 200,000 from this time last year.

Housing trends can have a good deal to do with employment in lumber and furniture. If home building picks up like it can (BW-Mar.15'52,p24), plants supplying building materials and home furnishings can rehire some of the 110,000 workers they let go in the last year.

And employment at the construction site—still 50,000 ahead of last year—might even yet top last year's record of 2.8-million workers.

Gloom in many of the depressed manufacturing lines grows out of a distorted view of the market.

Customers haven't been reordering even to meet current needs; they have been selling out of inventory.

This always exaggerates the distress. Even a little hand-to-mouth buying—just enough to keep store stocks at minimum working levels—will be enough to look like a sales boom as the situation clears up.

Sensitive commodity prices often show the first signs of a turn after an extensive inventory liquidation.

It may still be too early to make much out of price movements. Nevertheless, there are some changes that might prove significant.

Cotton prices have been stiffening for about a month. In the last two weeks gains have come to more than \$5 a bale.

Burlap has braced for the first time this year. Hides are a shade better, sugar has gained a little, and fats and oils have edged higher.

Whether higher prices for raw cotton spurred demand for cloth or a little cloth buying put cotton up is hard to say. Yet the trade is becoming convinced that something has happened.

A little business has developed in print cloth (BW-Mar.22'52,p10). The price in New York advanced slightly last week.

Mill men in the South, particularly in cotton yarns and fabrics, have perked up a bit, and are saying, "Maybe this is it."

Carpet demand has picked up a bit since January. That's the word Bigelow-Sanford stockholders received at this week's annual meeting.

And there will be less substitution for wool now that its price is down. However, over 75% of the yardage in the company's spring line contains some rayon compared with 27% a year ago.

Chemicals probably have about hit the bottom of their modest dip.

There was very little to this downturn that a pickup in general business couldn't cure. In fact, the dip was traceable in the main to the consumer goods lines that were lagging.

However, Monsanto notes that softness that started early this year has continued through to the end of the first quarter.

Horizons for oil and gas continue to recede. Discoveries replaced the 2½-billion bbl. of oil and 8-trillion cu. ft. of natural gas taken out of the ground in 1951—and added as much again to proved supply.



HOW $\frac{1}{50}$ TH
OF AN INCH
changed the complexion of an industry

A lining for tank cars which is only $\frac{1}{50}$ th of an inch thick—scarcely more than a film—first made practicable the shipment of liquid caustic soda in high concentrations without metallic contamination. As numerous processes necessitate the use of caustic in its purest form, this Columbia-Southern development has enabled many companies to effect economies in their use of this essential raw material.

In spite of its thinness, this patented lining effectively seals the caustic from the steel of the tank car, and its purity—even at highest concentrations—is safeguarded throughout transit.

This is one of a number of notable contributions to industry which have made Columbia-Southern one of the nation's great producers of alkalis and related chemicals.

**COLUMBIA-SOUTHERN
CHEMICAL CORPORATION**
SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY

CAUSTIC SODA

—a voracious chemical

The usefulness of caustic soda to industry is based upon this very power to attack and break down the chemical structure of many materials. In the manufacture of rayon, for example, caustic soda digests and purifies the cellulose . . . in the making of soap, it decomposes fats. This chemical activity of caustic soda makes it a vital raw material in a wide variety of industrial applications, and especially in the manufacture of other chemicals.



SODA ASH • CAUSTIC SODA • LIQUID CHLORINE • SODIUM
BICARBONATE • CALCIUM CHLORIDE • MODIFIED SODAS
CAUSTIC POTASH • RUBBER PIGMENTS (Mi-Sil, Silene EF,
Calcene TM) • CHLORINATED BENZENES • MURIATIC ACID
PERCHLOROETHYLENE

EXECUTIVE OFFICES: FIFTH AVENUE AT BELLEFIELD, PITTSBURGH 13, PENNSYLVANIA. DISTRICT OFFICES: BOSTON • CHARLOTTE • CHICAGO
CINCINNATI • CLEVELAND • DALLAS • HOUSTON • MINNEAPOLIS • NEW ORLEANS • NEW YORK • PHILADELPHIA • PITTSBURGH • ST. LOUIS

Clearing's Hydraulic Riveting Press uses

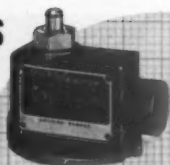
Thirty-one MICRO Precision Switches

for "almost-human" operation!

Clearing Machine Corporation's experience with MICRO Precision Switches in the "good design" of their new hydraulic riveting press will interest management men whose design staffs are seeking perfection in new products, or improvement in present ones.

This "almost-human" press performs ten operations automatically in riveting a plate to an aircraft-engine crankshaft. To protect press and crankshaft alike against damage from misalignment of the part being processed—or from carelessness by the operator—MICRO units are used to give foolproof control of the various steps of the riveting operation. Clearing's engineers chose MICRO SWITCH controls because of their recognized precision, dependability, sturdy construction and long-lived performance.

Whatever your problems of product design or redesign, if they involve small, sensitive precision switches, turn first to MICRO SWITCH. Consultation with a company-trained MICRO SWITCH field engineer costs nothing. He will gladly recommend the proper MICRO unit—either one of more-than-5000 stock switches, or a specially-designed one—to meet your individual need. Just call or write the MICRO SWITCH branch office nearest you.



Let a
MICRO SWITCH
Engineer show
you how you can
"use MICRO Precision Switches
as a principle
of good design."



Clearing engineer points to MICRO enclosed switch which prevents operation of this riveting press unless the part is properly seated.



Close up view of Clearing's special hydraulic riveting press on which MICRO SWITCH products are used to control the various steps in the riveting operation.

MICRO SWITCH

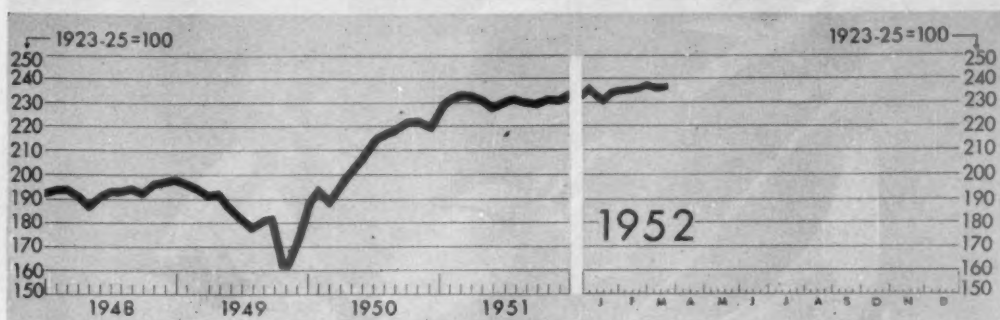
FREEPORT, ILLINOIS



MICRO Snap-Action Switches
Honeywell Mercury Switches

A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

FIGURES OF THE WEEK



Business Week Index (above)

\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
237.9	237.3	237.2	234.0	173.1

PRODUCTION

Steel ingot production (thousands of tons).....	2,131	2,127	2,096	2,069	1,281
Production of automobiles and trucks.....	123,300	120,392	110,542	174,674	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$43,452	\$40,734	\$34,280	\$43,932	\$17,083
Electric power output (millions kilowatt-hours).....	7,354	7,414	7,461	6,848	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,423	6,404	6,366	6,038	4,751
Bituminous coal production (daily average, thousands of tons).....	1,628	1,653	1,766	1,664	1,745

TRADE

Carloadings: manufactures, misc., and L.C.I. (daily av., thousands of cars).....	74	74	76	79	82
Carloadings: all other (daily av., thousands of cars).....	45	45	47	45	53
Department store sales (change from same week of preceding year).....	-11%	-16%	-6%	+11%	+30%
Business failures (Dun and Bradstreet, number).....	181	156	177	170	217

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	437.9	437.7	433.9	527.0	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100).....	288.7	289.6	296.7	368.5	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100).....	336.1	338.6	339.9	411.7	274.7
Finished steel composite (Iron Age, lb.).....	4.131¢	4.131¢	4.131¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton).....	\$42.00	\$42.00	\$42.00	\$43.00	\$20.27
Copper (electrolytic, Connecticut Valley; lb.).....	24.500¢	24.500¢	24.500¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.51	\$2.50	\$2.50	\$2.39	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	41.46¢	40.95¢	40.19¢	45.14¢	30.56¢
Wool tops (Boston, lb.).....	\$1.85	\$1.90	#	\$4.70	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's).....	189.6	189.2	184.4	170.7	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.51%	3.51%	3.53%	3.26%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	2½%	2½%	2½%	2-2½%	1-1½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	52,993	53,406	52,557	50,321	1145,210
Total loans and investments, reporting member banks.....	73,919	73,641	73,504	70,447	1171,147
Commercial and agricultural loans, reporting member banks.....	21,469	21,233	21,148	19,173	119,221
U. S. gov't and guaranteed obligations held, reporting member banks.....	31,959	31,854	31,973	31,198	1149,200
Total federal reserve credit outstanding.....	24,216	23,778	23,887	23,607	23,883

MONTHLY FIGURES OF THE WEEK

MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Cost of living (U. S. BLS, 1935-39 = 100) old basis.....	February.....	188.3	190.2	184.2	139.3
Wholesale prices (U. S. BLS, 1947-49 = 100).....	February.....	112.6	113.0	116.5	78.7
Retail sales (seasonally adjusted, in millions).....	February.....	\$12,880	\$12,642	\$13,321	\$8,541

* Preliminary, week ended Mar. 22.

†† Estimate (BW—Jul. 12 '47, p. 16).

≠ Not available.

Date for "Latest Week" on each series on request

† Revised.



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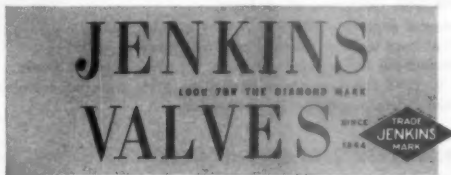
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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
MAR. 29, 1952



Washington is pessimistic on steel. It will take a strike, it seems, to reconcile all the divergent views. Someone is going to have to back down, and, before that can happen, someone is going to have to get hurt.

Look at the lineup:

Murray is adamant on his wage demand. He isn't interested in steel prices.

Truman stands with Murray on wages. Everyone agrees he will stick with the Wage Stabilization Board's recommendations (page 174). Mobilizer Wilson tried unsuccessfully to get Truman to change his mind on this. Truman refused. (The next day, Wilson threw the situation temporarily into confusion by expressing publicly his "personal opinion" that the WSB recommendations were a threat to stabilization.)

Truman's present position on prices is that the steel companies can't have any substantial increase. So far, he shows no sign of yielding. Economic Stabilizer Putnam has no gimmick in the works. Price officials still say: Steel will have to come in, company by company, and justify any price relief; the only sure increase is \$2 to \$3 a ton under the Capehart formula.

Steel companies are standing just as firm on their price demands. The companies will resist orders to come to Washington with hats in hand. They haven't even asked for the Capehart increase, because they don't want to weaken their position of "no wage rise without an exact price increase."

Eventually, Truman will yield, it's assumed—but not until mobilization begins to be hurt by a shutdown in steel. The same thing happened in 1946, when he settled steel by giving \$5 in prices to pay for $18\frac{1}{2}\epsilon$ in wages.

Truman first will try to talk steel into taking its price in pieces. For example, he might offer steel its due under Capehart, plus some more relief immediately to offset costs of the immediate wage rise and retroactive pay to Jan. 1. Then he'd invite steel to make another request in July, when it begins paying an additional $2\frac{1}{2}\epsilon$ an hour, plus some fringe benefits. Later, steel could come back again in January, when another $2\frac{1}{2}\epsilon$ in wages, plus $3\frac{1}{2}\epsilon$ in other delayed fringes, go into effect.

That kind of deal will not set well with industry. And Truman won't be able to push it far if Congress gets too critical. He will be influenced by what happens before Sen. Maybank's defense production watchdog committee and by the House investigation of WSB.

Whatever happens, WSB will be in hot water for a long time. There have been growing attacks in Congress over the board's endorsement of the union shop in steel.

And the House committee will be a sounding board for other complaints against WSB:

The oil companies are angry at the board for piling all oil wage problems into one industrywide case. Borg-Warner fears that the board will give Reuther's UAW a corporationwide contract—something he never got from the National Labor Relations Board.

The upshot might be that WSB will be clipped of all but wage powers.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
MAR. 29, 1952

Its authority to handle such noneconomic issues as the union shop comes only from the President. Congress could take that away in the new controls law.

Third-quarter metal allotments are full of water. This is the government's acknowledgment that the consumer goods business is lagging.

CMP tickets going out to industry total far more than supply. Ordinarily, a 5% or 6% overallotment is made to offset turnbacks. But in the July-September quarter, the overallotment is doubled and tripled. On steel, it's up from 10% to 17% over supply; on copper from 5% to 16%; on aluminum from 5% to 13%. This means the government expects business to be wobbly this summer.

Here are third-quarter allocations for consumer goods: steel 55% of pre-Korea, up from 50%; 35% to 40% on copper, up from 30%; 45% on aluminum, up from 30%.

And you can get 10% more steel and aluminum later if you need it.

Congress is going to take its own look at the state of defense. Sen. Lyndon Johnson's Preparedness Subcommittee is opening up next week. He intends to make mobilizer Wilson justify the stretchout—another headache for Wilson on top of the steel fight.

The costs of Congressional investigations are piling up. This week the Senate approved \$100,000 for a probe of the Office of Alien Property. That brings the total allotted for investigations for the 82nd Congress to \$4.3-million.

Fair trade lobbyists are losing their optimism (page 36). They had high hopes they could push a new law through Congress. Then Speaker Rayburn let it be known he wasn't very interested in the bill. (Rayburn's home state, Texas, has no fair trade law.)

Public construction is getting another shot in the arm. More materials will be available now for hospitals, schools, highways, etc.

Credit is being loosened for local and state projects. Truman has ordered removal of restraints on public bond issues for public works. (Also, Montana and Oregon can now sell bonds to finance a soldier bonus.) Sale of bonds for such construction was blocked a year ago by the Voluntary Credit Restraint Committee, set up by the Federal Reserve Board.

Another survey of business expansion for 1952 is out. This one, from the Securities & Exchange Commission, forecasts business will add \$20.2-billion worth of plant and equipment.

SEC reports businessmen are optimistic about sales.

Manufacturers expect a pickup of 5% over 1951.

Consumer durables are expected to do better than the over-all 5%.

Utilities figure a 10% rise.

Mining companies say they will do 11% better.

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Mobilization Adds a Year to Timetable

The men in Washington who call the turn on national defense have taken another look at the mobilization pro-

from responsible parties at both extremes of the "guns or butter" debate. Sen. Lyndon Johnson and his associates

simply can't risk any slowdown in armament; it would endanger security. So Truman has bought the present

Less for War, More for Civilians

● That's the meaning for business of Truman's \$19-billion slash in the military budget.

originally planned. The peak will now be less than 24 engines a month; eventually, the plant will probably be put on standby.

Mobilizers Plan Looser Control System

● With metals getting easier, officials expect to drop the Controlled Materials Plan at the end of this year.

the toughest that nonmilitary producers would have to take. This kind of talk now has switched to a virtual promise of more metal after July 1 for most

How Bad Is Munitions Production?

Just how many weapons actually are being produced by the nation's defense plants?

over-all, arms production—measured by dollar volume—is lagging no more than 30% behind schedules.

that we have just started production on the F-86F, which airmen believe will be clearly superior to the MIG.

You won't find an answer in the

Technically, that percentage is prob-

We've done better productionwise on

Does Production Really Matter?

This week a lot of Americans are asking themselves: "What's going on here?"

Behind the question lies uneasiness and mystification about armament production. For months now, the news has been the same—a continuing lag in output of fighting materials, continuing failure to meet schedules despite continual downward revision of the schedules themselves.

Who is fouling things up? How can a nation that was able to flood the world with arms 10 years ago stumble so hopelessly over a mere \$50-billion program?

It's baffling.

● **New Concept**—Actually, there is an answer, and one that makes sense. You get it from the most thoughtful officials in Washington. And this week, talking to the businessmen all over the country who hold the Pentagon's munitions contracts, BUSINESS WEEK reporters got the same answer from industry. Bluntly:

Today no one really wants mass production of armaments very badly. High

output is a nice thing, but a lot of other things are considered more important.

That sounds shocking, but it's a direct and natural consequence of the kind of mobilization the U.S. is engaged in.

The United States is not arming to fight a war. It is arming to prevent a war. In shaping the mobilization, Washington policymakers have had to gamble, one way or the other, on this question: Will we have to fight a major war any time in the immediate future? They are gambling that we won't.

If the planners saw any serious possibility of war within, say, a year, then production would be everything; peak output of anything useful on the battlefield would have top priority.

But the planners don't see that possibility. They are betting that either we won't fight at all or will fight sometime in the relatively distant future. So production for its own sake has a low priority. All sorts of objectives rank ahead of it:

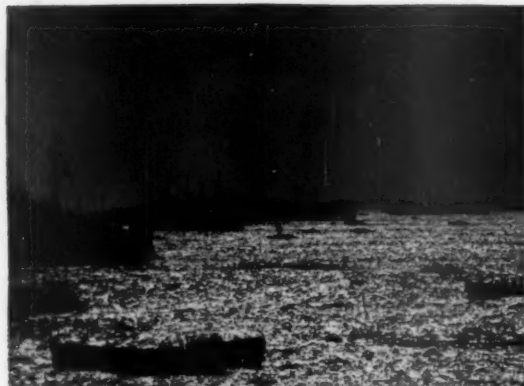
● High quality and advanced design of weapons are more important than numbers—to ensure that if they are eventually used they won't be obsolete.

● Productive capacity is more important than production. Once a factory is able to roll out weapons, the factory itself becomes a much more significant weapon than the ones it produces.

● A strong civilian economy is a mobilization objective in itself.

● Political factors become more important, even in military eyes, than output. The generals don't want to risk any popular revulsion, which would endanger the policy of long-term mobilization.

● **Snafu**—This policy has enough second thoughts and reservations in it to produce a higher-than-normal proportion of snafu and apathy among the people working on it. And these have contributed their share to production lags. But it's the policy itself, rather than the snafu, that primarily accounts



1 In World War II, the U. S. produced arms like crazy and shipped them to the battlefield.



2 We could produce acres of obsolescent planes again now—if that was good enough. But . . .

for the absence of real mass output of weapons.

I. The Big Gamble

To get the picture, go back to the days before Korea. At that time, mobilization was little more than a word. When war broke out, it took on a more real, but a still limited, meaning.

• **Which Way?**—When the Chinese entered the war at the end of 1950, the U. S. realized that mobilization had to be expanded and put on a longer-term basis. But there were two roads to mobilization. One was to turn out war materials at top speed, get ready to fight an all-out war at the earliest possible date. The other route was to concentrate on quality rather than quantity—accept less immediate production, but take the time to design better weapons than had ever been made.

The U. S. took the second course. As a result, the present mobilization differs from the World War II mobilization in two fundamental ways:

• **Instead of becoming an arsenal of democracy immediately, the U. S. is first going to experiment at the drafting board and in the laboratory.**

• **Instead of trying to switch its existing industrial plant to military work, it is expanding and improving its basic industrial capacity.**

• **Basic Reasoning**—From a political and military point of view, this represents a tremendous gamble. It is obviously based on the idea that the Soviets will not start an all-out war immediately, and may never.

All that means that if full-scale war should come—suddenly and unexpectedly—the U. S. would be far from fully prepared; it would probably take a terrible beating for, say, the first year. One strategist summed it up neatly this way: "It comes down to a choice of

winning either the first year of the war or the last year."

• **Risky Either Way**—Why does the U. S., with its almost unbelievable productive potential, take such a risk? Most leaders in both the government defense program and in industry will give you the same answer: "because to follow the alternative of top-speed production looks even more risky."

Modern warfare has changed the old idea that the way to win is to get there "fastest with the mostest." Today the U. S. military theory is to get there later if necessary—even last—with the best.

This theory has a sound basis in history. The most recent shining example of how a nation tripped itself up by concentrating to too rigid extent on quantity production was Nazi Germany. Most authorities say that this was one of the most important factors in Germany's loss of the war: It froze designs early and built the strength to sweep over Europe. But, as the war went on, its masses of equipment became more and more out of date.

• **Combine the Two**—By contrast, the U. S. has always worked on a combination of the two theories: Produce fast when you have to, but don't be afraid to make changes and improvements while you're doing it. That's truer now than it ever was before; the feeling is that there's just no point in producing weapons that are inferior to those of a potential enemy.

II. Drawing Board Battle

You can find an example of how this philosophy works today by taking a look at the guided-missile program. No true guided missiles are in actual production at this point. But that doesn't mean that the U. S. couldn't produce pilotless missiles at any time. One scientist

connected with the project put it this way:

"Hell, we could start producing V-2s tomorrow, and in a little while they would be coming out of our ears. But what's the sense of doing that, when Russia can turn them out just as fast and has as many brains on it as we have? The fact is that we just don't think V-2s are good enough. We aren't interested in a missile that will hit a random target like a city. We want one that we can pinpoint on a specific vital spot in that city. And that's just what we'll have pretty soon."

• **Jet Planes**—The same thing applies to other equipment, like jet planes. As everyone knows, the F-86 just isn't up to the Russian MIGs. Once more, the U. S. had a choice: It could turn out huge quantities of F-86s, pile them up all over Korea and the U. S., or it could develop something better.

The latter course is the one that the real stress is on. And by something better, neither the military nor industry means just something that will easily whip the present MIGs. They mean something that will be better than the best jet plane Russia can come up with.

• **The Payoff**—In essence, then, the big gamble against an immediate war has paid off so far something like this:

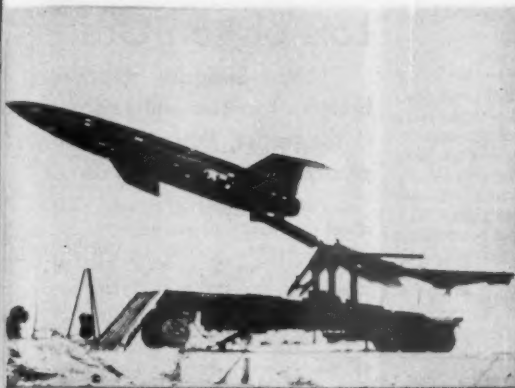
• You don't produce a lot of obsolete equipment, fill warehouses with stuff that may never be used.

• By working this way, you don't kill the goose that lays the golden egg—the civilian economy.

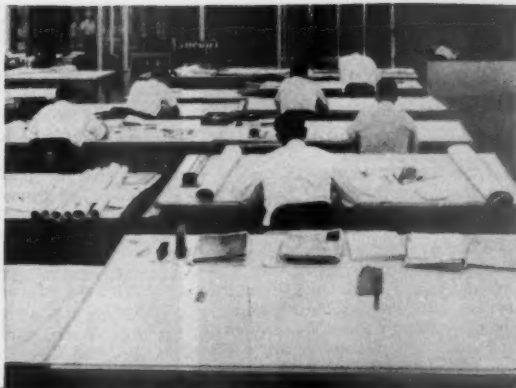
• By working slowly, you can increase the power of your production engine, by expanding and improving it—and keeping it at idling speed.

III. The Constant Change

The trouble is that the engine isn't idling very smoothly. And there is a



3 The military wants ever newer, better equipment, good for years ahead.



4 That means new designs and constant change. And that keeps production low.

whole raft of reasons for that, ranging from general Washington snafu to the basic complexity of design of modern war equipment.

• **Washington Snafu**—On the government side, there's no doubt at all that orders get fouled up in bureaucracy and red tape of the worst kind. Because of that, you can probably blame Washington for what production delay there is—particularly the individual services.

The president of a big electronics company describes it this way: "Here's what happens: A general comes in here from Wright Field, flush-faced, pounds on my desk, and vells at me, 'You've got to get it done! People are getting shot down!' I get all worked up, naturally, scream at my men, there's a mad rush, nervous breakdowns. Then a couple of months later I happen to be talking with the top brass at the Pentagon who says, 'Nuts. Those people at Wright are just getting overexcited.'"

• **Design Changes**—However, not all of Washington's indecisiveness comes from a general snafu. A sizable part of it comes from the refusal to freeze designs, a willingness to stop production of one item when another, better item comes along.

Without the pressure of real necessity, there's no reason not to hold up the whole works for any new idea, however small. You may not turn out much stuff that way, but what you do turn out is constantly improving.

IV. Complex War Machine

Another really important factor is the very complexity of war equipment nowadays. Two of the best examples are electronics and airplanes. If you talk to the electronics industry, you find that their production lag—somewhere around 20% over-all—is in limited areas, mostly new types of

equipment. One big company reports that it is way ahead of schedule in some areas—for example, certain kinds of airborne radar.

• **Electronic Airplane**—But the same company points out another thing—the incredible growth of the size and complexity of electronics in modern warfare. At the beginning of World War II, said one official, only between 1% and 2% of an airplane was electronic equipment. Today it's closer to 20%. For example, all the electronic stuff in a B-29 would fill just half of one wing of the latest bomber. And most of the equipment is all brand-new stuff that nobody dreamed of a few years ago.

• **The Modern Fighter**—Likewise, the biggest headache in plane production is the very complexity of the unit. To get a picture of this, just consider what the modern fighter pilot has to contend with in one of our simpler aircraft:

He sits in about 40 cu. ft. of pressurized space in a nine-ton machine roaring through the air at speeds close to the speed of sound. Packed into this machine in every available space are tons of fuel and high explosives, turbines spinning at 10,000 rpm., a lot of other complex moving parts. In these surroundings, the pilot must operate about 80 regular controls, switches, buttons, and perhaps a dozen emergency controls. He must keep his eye on some 40 instruments and warning lights.

• **Move for Simplicity**—This growing complexity has worried a lot of people. Said one leading electronics manufacturer: "I'm afraid we're going to engineer ourselves into a corner if we don't begin to simplify and standardize more on our electronics."

V. It Works Anyway

Probably the most amazing thing of all about the current mobilization pro-

gram is the very fact that it is working as well as it is. While the general figures on production look discouraging, you find that in most lines things are a lot better than they look.

• **Machine Tools**—For a long time, for example, you could hear loud screams about machine tool shortages. Actually, there is no bottleneck in machine tools now, except for four or five special—and generally new—types. By the end of this year machine tool shipments will be going out at the rate of \$1.2-billion a year—close to the World War II peak of \$1.3-billion.

Jet engines, the big choke point in most plane production, are in general getting pretty close to meeting schedules. Moreover, many of these engines are superior models to present types.

• **Military Worries**—What all this means is that production may soon catch up with its schedule, in spite of its secondary role. And, strangely, that may very well give the military more to worry about than any current production lag.

The reason is that the military is jittery over any adverse public reaction to its plans. In the absence of any new international crisis, too fast a military buildup followed by a shutdown and an economic recession might swing the pendulum against the whole program. There's no guarantee that the postwar rush to demobilize can't happen again.

In fact, one reason behind the military's ready acceptance of the lower-and-slower production program was its desire to keep the major goal more or less permanent partial mobilization. If it can do this—partly by keeping the war and the buildup from becoming any kind of a serious campaign issue—the U.S. will be able to turn out such superior weapons that victory in any future war will be assured.

Too Tough...

... says Waltham Watch Co. of Swiss competition. The company has decided to import Swiss movements.

Waltham Watch Co. startled the industry this week with what seemed to be an abrupt change of mind. Instead of depending entirely on its own production to get it back into the watch business, the once-bankrupt company is going to import some Swiss 17-jewel movements. As recently as two weeks ago (BW—Mar. 15 '52, p. 36), when the trouble-dogged company was priming itself for a fresh start, it gave the trade no hint that it had any notion of breaking with its traditional policy of making all its own watch movements.

Waltham says that the reason behind the switch in policy was this: "The trustees are of the opinion that, under present conditions, Waltham Watch Co. could not compete on equal terms . . . when importers can bring such watch movements into the country for considerably less than what it costs American watch companies to produce them."

• **More Trouble**—Behind this announcement, there hangs a rather sad story.

Teviah Sachs, president of Waltham, says that two weeks ago he didn't know the company was going to import the Swiss movements. During the intervening time, however, a study of the economic situation convinced him and the trustees that they would have to do so. They "would much have preferred to continue to manufacture all 17-jewel movements at the plant in Waltham, but the company is unable to do so on a sound business basis."

When this decision was reached, Sachs and the trustees called a meeting with members of the American Watch Workers' Union and told them about it. Neither the union nor its president, Walter Cenerazzo, was happy about the development. It meant less jobs for the American workers, and it meant bowing to AWWU's traditional rivals—the lower-paid Swiss workers.

Waltham had intended to keep the decision a secret for several months—possibly until the first Swiss-movement watches were due to hit the market. But somehow the news crept out of the union meeting. Now the company is busy trying to explain how its change of heart came about so quickly.

• **A Ghost**—Swiss competition haunts all American watchmakers. This is especially true with respect to 17-jewel watches. On 19- and 21-jewel movements, a stiff tariff protects U.S. man-

ufacturers. But with 17-jewel movements, the tariff isn't high enough to keep the Swiss products out.

A study made by the University of Pennsylvania in late 1951 showed that, if the tariffs on imported watches were to be raised 50%, a lot of the imports would drop off and U.S. customers would have to buy American-made watches. Their annual watch bill, consequently, would rise about \$30-million. That's an indication of the price differential—the thing that makes watch manufacturing so tough a trade in the U.S.

Waltham's production in the past has been divided fairly evenly between 17, 19, and 21-jewel watches. The company won't say how much of its 17-jewel output will contain Swiss movements, but it does admit that its home manufacturing from now on will concentrate on 19 and 21 jewels.

Upjohn May Have Cortisone Synthesis

Only a few years ago, the drug industry discovered a way to make cortisone—a "wonder drug"—effective in relieving many diseases, from arthritis to asthma. But producing it has always been an expensive and complex problem. Made from ox bile, it takes hundreds of slaughtered cattle to get just a few grams of cortisone. And in order to do even that much, you have to go through the most complex commercial chemical process there is—a series of 27 steps.

• **Solution?**—Last week the drug trade buzzed with rumors that one company was close to a synthesis that would both use a simpler supply source and a simpler manufacturing process. The Upjohn Co. of Kalamazoo, Mich., runs the story, has found a way of using the fermentation process familiar in antibiotic manufacture to get a steroid close to cortisone. The mold it uses is said to come from grapefruit rind.

If Upjohn actually can make cortisone by this process, it will break the drug's production bottleneck. It will cut down the 27 steps now needed to one step. More important, the process does not use ox bile; instead, it can use a number of other starting materials that are more easily obtainable—such as soybeans or yams.

• **Cheaper Product**—Such a development would turn the cortisone picture upside down, from a commercial point of view. Merck & Co., its major producer now, sells cortisone at around \$20 a gram. That means the prescription price runs between \$30 and \$35. If Upjohn's method really works, cortisone might soon reach the price level of penicillin.

Lots of Iron Ore

Lake Superior shippers hope to top 100-million tons. If they miss, there'll still be plenty.

For the first time in 10 years, just about everybody connected with the iron ore business is wearing a Cheshire cat grin. They know that—short of cataclysms—plenty of ore will reach the blast furnaces this year, and well into the foreseeable future.

Lake Superior ore shippers are hoping to move more than 100-million gross tons onto lower lake docks and into mill yards before the season ends. There's a good chance that they'll make it, too, if the sailing weather opens up early and stays late. The target is to move 97-million tons by the 267 available ships, and 4-million tons by all-rail route.

• **Not Necessary**—Beating 100-million tons would be nice, but it wouldn't be necessary. In mid-April, an optimistic opening date for the arrival of big quantities, the holdover stocks are expected to be between 18-million and 20-million tons.

With that for a starter, a 1952 carrydown of 96-million to 98-million tons would be ample to fill needs and leave a good margin for safety. And that's allowing for new blast furnaces, scheduled to boost iron ore consumption by 3-million or 4-million tons a year when they start producing this summer.

Here are the calculations on which the shippers base their hopes of beating 100-million tons—a big jump over the 92-million-ton total reached in 1951:

• **All-rail shipments** will be doubled to reach the 4-million-ton total.

• **Two big converted salt-water ships** will be available for the entire season. Last year one came into service in midsummer, the other made its maiden voyage in the fall.

• **Two, and possibly three, new 18,000-ton carriers** will be in service for at least part of the season.

• **Ice Breaking**—Indications are that the sailing season will get under way about on schedule. By early April ice-breakers are expected to have channels open to Duluth, Two Rivers, and Superior.

The lower lake ports where the bulk carriers have their winter berths are already bustling with preparation. The mass departure from Toledo, Cleveland, Ashtabula, and other spots will get under way shortly after Apr. 1.

In the meantime, nobody at all is worrying.



Premier Joseph Stalin



Chancellor Konrad Adenauer



Opposition leader Kurt Schumacher



Secretary of State Dean Acheson

THE GERMAN ISSUE IS:

Shifting the Cold War Balance

The cold war in Europe at last has boiled down to the inevitable.

The East-West struggle for the control of Germany is fully joined. Stalin precipitated a showdown early this month with drastic new proposals for German unity.

The stakes are high for all three parties—the Russians, the Western allies, and the Germans:

- Stalin hopes, at a minimum, to keep West Germany out of the North Atlantic Treaty Organization and to force the withdrawal of U.S. troops from German soil. But his ambitions go further than that. He wants to tie a united Germany to the Communist bloc, thus getting effective control of both Europe and Asia. That would give him a position from which

he could even challenge U.S. influence in the maritime strongholds of Britain and Japan.

- Secretary of State Acheson has hinged U.S. policy in Europe on a rearm West Germany tied to the NATO setup, militarily and economically. If West Germany slips out of our camp, even into a neutral position, the whole NATO structure would be pretty flimsy. If we actually lost Germany outright to the Soviet bloc, that would give the cold war victory to Stalin.

- The Germans, finally, must make a choice. Today most West Germans are more interested in unity and independence—provided they look real—than in integration with the Western allies. If Washington hopes to

change this mood, or to hold a united Germany in the Western camp, it may have to offer the Germans a partnership promising both military security and stable foreign markets.

- **Shift in Strategy**—Up to Stalin's sudden policy shift, the Soviets, and worldwide Communist propaganda, had plugged for a demilitarized Germany.

Then, on Mar. 10, Stalin made his complete reversal. In a note to Washington, London, and Paris, the Russians proposed that a united Germany should be allowed to have a national army, navy, and air force, plus an independent arms industry. Big Four talks would work this out.

In nonmilitary fields, the Russian note went even further. It proposed

complete freedom for the German economy and held out the bait of unlimited markets in the Communist world. It also suggested lifting restrictions on the activities of ex-Nazis. The only thing forbidden was for Germany to join any military alliance.

• **Elections**—Thus Stalin offered just about everything that the German nationalists want, except the Eastern German territory given to Poland at Potsdam. Even that is a card the Soviet dictator could play later. The one important thing lacking, for most West Germans, was a guarantee of free elections in the Soviet zone.

That free election angle was stressed by the three Western capitals this week, when they came back with their reply to the Soviet proposals. The Allies are insisting on freedom for a United Nations pre-election commission to enter East Germany.

The Western reply also made two other demands intended to thwart Stalin's game:

- Creation of an all-German government, freely elected, before any peace treaty negotiations are held.

- The right of a united Germany to join a U.N.-approved regional alliance like NATO.

Washington figures that the position Moscow takes on elections will give the clue as to how serious Stalin is on Germany. There will be no Big Four talks till Stalin shows his hand on that.

• **Backtrack Hope**—In the State Dept., there's a lingering hope that Stalin will backtrack now, and merely use his proposals to confuse and divide Western Europe.

Behind State's hope lies this theory: Stalin is too cautious to gamble on a unified, rearmcd Germany. He would be giving up control of East Germany, thus weakening his hold on the rest of the satellites. And he would risk the revival of a formidable military power.

If Stalin doesn't follow through, Washington think his latest move may boomerang by speeding the integration of West Germany with NATO. Both the Adenauer government and the Pinay government in France are now anxious to push integration.

• **Haggling**—Chances are, though, that the Kremlin means business this time. To be sure, the Communist press is still turning thumbs down on U.N.-supervised elections. But the Russians may propose supervision by the Big Four plus several neutrals. Most Germans would accept that.

• **Timetable**—Meanwhile, the timetable of West German integration has been speeded up. It calls for signing by Apr. 15 of a new contractual agreement ending the occupation and parliamentary approval of the agreement plus the European Defense Community soon after that.

Washington is counting on Chancellor Adenauer to see this program through the Bundestag at Bonn. Adenauer has been sold on our policy for many months now. He prefers to see integration come before unification.

• **Schumacher**—It's doubtful, though, if any real progress can be made at Bonn—unless Moscow reverses its tactics. Kurt Schumacher's Social Democrats have been firmly opposed to economic and military integration.

Schumacher has been shooting for unity first. He figures that he will be the first chancellor of a united Germany. He's probably right in that, since the Social Democrats would win free elections hands down in East Germany and perhaps even beat the Christian Democrats in West Germany. If Schumacher thinks there's a chance that Moscow will agree to free elections, he's likely to block Bundestag action on Adenauer's integration plans.

It's possible, of course, that Schumacher wouldn't get popular support for such tactics. Some U.S. officials think the majority of West Germans will be suspicious of Soviet proposals for revival of a national army.

It's possible, too, that the West Germans will think twice about lowering their own living standards in order to build up East Germany economically.

• **Within a Year**—As things look now, though, German unification may come within the next 12 months or so. If it comes, the U.S. will be faced with some ticklish problems.

U.S. officials are saying today that we would keep Western forces in Germany until we were sure that the new all-German government was a friendly one. Also we would stick with our plans for European integration. Instead of bringing in just West Germany, we would fit a united Germany into the NATO setup.

That will be harder said than done. There's nothing France dreads more than a strong Germany of some 70-million people. It's doubtful if any government could lead the French people into a partnership with a united Germany. Instead France might turn to a more nationalist policy under de Gaulle.

Then, there would be the problem of selling integration to the government of the new Germany. Schumacher's aim seems to be an anti-Soviet Germany that's on its own, not tied with NATO.

• **Nationalists**—The only likely alternative to a Schumacher government seems to be a nationalist regime that would try to blackmail the U.S. and Russia in a game to revive German imperialism. That's probably just what Stalin is counting on. He may figure that Russia is strong enough now to handle such a regime, gradually lure it into the Communist camp.



STORM'S WHIRLING BLAST did its

Tornado Belt

The Red Cross, Salvation Army, Reconstruction Finance Corp., and just about every other possible agency moved into six Mississippi Valley states this week to mop up the wreckage that was left by a disastrous succession of tornadoes.

The twisters struck last weekend, smashing in chaotic swathes through parts of Arkansas, Tennessee, Missouri,



COMMUNICATIONS were shattered. This



heaviest damage in the town of Judsonia, Ark. Here's the business section, before the work of clearing up began.

It Starts the Long Road Back

Mississippi, Alabama, and Kentucky.

Measuring the damage of the storms, and the freeze that followed them, progressed slowly. Death tolls were juggled almost daily—but all figures offered were over 200. All sources agreed that more than a thousand persons had been injured.

Estimates of the material damage were guesses. Apparently, a valuable

strawberry crop had been ruined. More than a thousand dwellings were destroyed, and an even larger number damaged.

While the stricken area was still cowering under the threat—which didn't materialize—of further twisters and extensive floods, the rest of the country took on the job of relief.

The Red Cross has moved in with

doctors, nurses, and disaster staff. It has already tacked an extra \$5-million onto its annual plea for funds. This sum and more will be used in the tornado strip.

RFC also offered help. Parts of five of the affected states were declared a "disaster area" by administrator Harry A. McDonald. Stations are being set up to dole out loans—at 3%—to rehabilitate damaged property.

Still further help was in the offing. Truman ordered a survey of the area, to measure the need for federal relief.



hangar is at the Dyersburg (Tenn.) airport.



LOOTING comes on disaster's heels. Soldier guards Judsonia's wrecked bank.

Not Enough Grain

Dept. of Agriculture gets the fidgets when survey shows farmers don't intend to plant so much as it wants.

Top officials in the Dept. of Agriculture have suddenly started worrying about 1952 crop prospects—especially the outlook for corn.

Government experts figure that the farmers will have to plant 89-million acres of corn this year to supply the country's needs. But the department's survey of planting intentions for 1952 shows that they plan to put in only 84-million acres.

Unless the farmers decide at the last minute to boost their acreage, the U. S. will be risking a real grain shortage later this year.

With only 84-million acres planted, it would take just a touch of bad weather to cut the supply of corn well below demand. And the shortage would kick back at once on the meat industry; it takes a lot of grain to keep up today's big meat and poultry production.

• **What's Behind It?**—Officials still hope they can get farmers to boost their acreage—particularly in the high-corn-yield areas of the Midwest.

As they size up the problem, farmers would be glad enough to put in more corn. There is no lack of price incentive. The trouble is lack of adequate labor to handle corn and other feed grain crops. By concentrating on the high-yield areas, where labor is most productive, the Agriculture Dept. hopes to offset the effects of smaller plantings elsewhere.

• **Kickback**—The grain situation is touchy this year, because the U. S. is still feeling the effects of last year's bad weather in the corn belt. In the fall of 1951, an early frost hit the crop. So a high percentage of the crop had too much moisture to store well.

That means corn will be tight this summer—before the new crop is ready. Knowing what is ahead, hog producers have been hustling their animals off to market in droves. The movement between now and late spring is expected to increase despite low prices.

The result is that housewives are getting meat comparatively cheap today. But they may be forced to more than pay for their bargains later. Hog producers, even more than cattle and poultry producers, keep a weather eye on future corn crops and speedily cut back on numbers when they foresee a drop in the corn supply.

• **Best Hope**—Agriculture officials are pinning their hopes for the future on

two things: hybrid seed and a high yield per acre of grain feeds. The reason is that, while more animals are required each year to feed the country's growing population, the number of farmers and those working on farms falls steadily. The Bureau of Agricultural Economics estimates that in 1951 alone the number of farm workers dropped 329,000 to a record low of 10,022,000.

• **Paradox**—But even though the farm labor group grows smaller, yield per acre is rising. If bad weather hadn't developed last year, there would be no occasion to worry about this year's corn crop. During the past 20 years corn growers have been able to boost the nation's production in spite of an overall cut of about 20% in total harvested acreage. Officials, though unwilling to take the risk, say that with good weather a 3-billion-bu. crop could be obtained this year on the 84-million-acre planting estimate.

• **Worried**—Corn isn't the only crop that has the department worried. Estimates for wheat and most other basic crops are considered more than ample. But cotton is a different story. The department can't make any official statement on cotton prospects at this time. Privately, however, department officials and trade leaders are gloomy. The nation will enter the new crop year with one of the lowest carryovers on record and with only an outside chance that the growers will plant the 28-million acres advised by the government. Again, officials say, it is a question of labor rather than prices.



Canned Jet Engines

Turbojets from General Electric Co.'s Lockland (Ohio) plant are shipped to the Air Force in steel cylinders. The cylinders protect the engines from shock and moisture, and are nonsinkable. On Mar. 19 GE delivered its 10,145th engine to the Air Force.

Odlum Eyes K-F

Merger of Convair with Kaiser-Frazer would give him a toe-hold in the auto industry, boost K-F out of red.

Attempts to track down details of a possible merger of Kaiser-Frazer Corp. and Consolidated Vultee Aircraft Corp. pile up in a dead-end street. Both sides acknowledge a foundation for the rumor, but clam up tight when it comes to details. However, executives at Atlas Corp.—which has had working control of Convair since 1947 (BW—Mar. 17 '52, p. 84)—admit that Atlas chairman Floyd B. Odlum has been talking with the boys at K-F.

• **Convair Gains**—Such a deal would make a lot of sense for both sides. On the credit side for Convair:

• K-F is moving right up in the aviation field.

• K-F could bring to the marriage a big tax-credit dowry. Accumulated losses on its auto business could be deducted against future income of a merged concern.

• Kaiser has a good reputation for technical and engineering knowhow.

• The merger would give Convair a toe-hold in the auto industry—a handy in if the aviation industry goes to pot after the war program ends.

• **Black Ink**—On the Kaiser-Frazer side, a merger would help pull the company out of a financial bog. K-F is the losing end of the Kaiser empire. All Kaiser's other companies are making money now.

Since it was organized in 1945, K-F has had only two years in the black, during which time it made \$29-million. Over the remainder of the period, operations resulted in a net deficit of more than \$74-million. (The 1951 report hasn't been issued yet, but it's doubtful if the company made a profit.) At the close of 1950, of the \$56.8-million capital invested, only \$22.5-million remained. In the interim it had borrowed approximately \$47-million from the Reconstruction Finance Corp.

By teaming up with Convair, the company could emphasize the aviation end even more, offset the licking it's taking on autos.

• **Cars, Too**—Of course, none of this means that Kaiser has any intention of crying uncle on the auto end. Both Henry J. and son Edgar are too stubborn to give up just because they didn't get off to a roaring start. The company has already announced that tooling for the 1953 auto models has been completed and its 1954 models have been frozen. Said Henry J., "We're in the auto business to stay."

A Word of Caution On Steel Inventories

Care with regard to excess inventories is probably always good business, but when the steel supply begins to approach demand, even if only on one or two items, a word of caution may be in order.

Most steel products are still in short supply. And best opinion indicates that it will be months before supply completely catches up with demand. But the supply is about equaling the demand on the smaller hot rolled and cold rolled bars, though larger sizes are still short. Sheets are also beginning to be more available and our stocks are larger and more complete.

This evidence of availability is offset by government claims for more steel to be required by the defense program. However, as there are definite indications that supply is certainly more nearly approaching demand, it becomes more and more desirable

to avoid top heavy and unbalanced inventories. And since the improving supply situation is reflected in warehouse stocks, it becomes safer and more practical to buy steel from warehouse. By thus maintaining a streamlined inventory more capital is available for the operation of your business and the chance of obsolescence and depreciation is minimized.

Unfortunately, our stocks in some lines are still unbalanced from a size standpoint. However, we do advise keeping ahead of the changing situation, ordering the exact kinds and sizes needed from stock, and securing immediate shipment. Our experienced steel men are always ready to counsel with you on matters of procurement, application, and fabrication. So whenever you have a problem or need steel quickly, call Ryerson.

PRINCIPAL PRODUCTS

CARBON STEEL BARS—Hot rolled and cold finished

STRUCTURALS—Channels, angles, beams, etc.

PLATES—Many types including Inland 4-Way Safety Plate

SHEETS—Hot and cold rolled, many types and coatings

TUBING—Seamless and welded, mechanical and boiler tubes

ALLOYS—Hot rolled, cold finished, heat treated. Also tool steel

STAINLESS—Allegheny bars, plates, sheets, tubes, etc.

BABBIT—Five grades, also Ryerlex plastic bearings

MACHINERY & TOOLS—For metal fabrication

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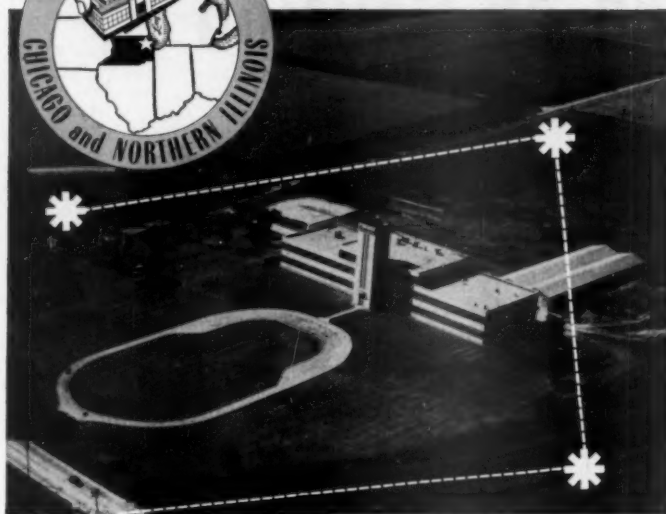


Photo by Morris Aerial Survey

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A plant site at the heart of the greatest industrial center of the United States—where transportation facilities, labor supply, and living conditions are unexcelled—yet a site that offers room to grow and expand—this is the prospect for industries locating in Chicago and Northern Illinois.

This industrial "elbow room" is an important plus to look for these days. To find it in a location where industrial growth, measured in dollars, has exceeded that of any comparable area in the country is to find the ideal spot for the development or expansion of your business.

That is why, before you decide on any industrial location, you are urged to investigate Chicago and Northern Illinois. We'll make that easy for you.

A LETTER TO US... describing your requirements will bring you a careful analysis of this area's advantages as they apply to your business. Or if you wish, we will send you a carefully screened list of the available buildings or sites that would be suitable for your operations, based on the information you give us.

We keep all such inquiries confidential. Just write us.

Industries in the Chicago area have these outstanding advantages: Railroad Center of the United States • World Airport • Inland Waterways • Geographical Center of U. S. Population • Great Financial Center • The "Great Central Market" • Food Producing and Processing Center • Leader in Iron and Steel Manufacturing • Good Labor Relations Record • 3,062,000 Kilowatts of Power • Tremendous Coal Reserves • Good Government • Good Living • Good Services for Local Tax Dollars.

TERRITORIAL INFORMATION DEPARTMENT

Marquette Building—140 South Dearborn Street, Chicago 3, Illinois

**COMMONWEALTH EDISON COMPANY
PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS**

BUSINESS BRIEFS

Off the ground: CAA issued its first airworthiness certificate for a transport helicopter, Sikorsky's S-55 (BW—Nov. 24'51,p132). The craft will carry eight to 12 passengers for 495-mile range; military versions have been proved in Korea. . . . British Overseas Airways announced the first scheduled flight of a jet airliner, leaving London May 2 for Johannesburg, South Africa.

Defense contractors subject to renegotiation can now see how they stand. The Renegotiation Board this week issued new regulations to replace the temporary rules announced in January. The new code embodies many changes suggested by 124 industry groups; it spells out who's subject to renegotiation and what costs will be allowed when computing excessive profits.

The end of credit restraint for state and local governments (page 16) clears the way for sale of veterans' bonus bonds by three states. Oregon (BW—Jan.26'52,p28) plans to offer \$50-million to \$55-million in bonds instead of the \$40-million originally sought; Montana aims at \$22-million—a \$15-million offering in mid-March drew no bids (BW—Mar.15'52,p28). And West Virginia will go ahead with the rest of its \$674-million issue (BW—Dec.8'51,p163).

Major domestic airlines appealed to CAB for abolition of the 5% discount on round-trip fares and for a \$1 service charge on all domestic tickets.

Cincinnati Enquirer employees are making a last-minute bid to keep the paper from being bought by a rival newspaper, the Times-Star (BW—Feb. 23'52,p21). They're trying to match the \$74-million price that a federal court will be asked to O.K. on Apr. 28.

Atlantic shipping rates are still slipping (BW—Feb.23'52,p9). Rates on bulk grain shipments from Middle Atlantic and New England ports to Europe were shaved \$1.50 a ton, bringing them down to \$12.50. End of coal shipments to Europe released a lot of freighters, and tramp ship rates have been tobogganing.

Co-ops chains of small grocers are hit by this week's Federal Trade Commission ruling against the Independent Grocers' Alliance Distributing Co., which acts as agent for 4,300 retailers. FTC is enforcing the provision in the Robinson-Patman Act that forbids a buyer to collect a concealed price rebate from a seller as a brokerage fee.

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NEW LOW-COST NOISE-STOP BAFFLES!

Here's a practical solution to the problem of annoying plant noise . . . Noise-Stop Baffles, newest addition to the complete line of Fiberglas® sound control products. Reductions in loudness can be obtained with substantial benefits in employee relations and measurable increases in efficiency—ALL for $\frac{1}{3}$ to $\frac{1}{3}$ the total cost of a standard acoustical ceiling.

Installation of these 2' x 4' units of non-combustible Fiberglas preformed board can be made without stopping production. Noise-Stop Baffles are encased in a dust and lint-repellent plastic

film that makes them easy to clean, move and maintain. The baffles are hung vertically from wires spaced not to interfere with overhead equipment.

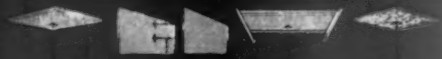
In addition to fine sound-conditioning qualities, Noise-Stop Baffles are fire safe, resistant to moisture and humidity, and have high light-reflection value.

Why not get a Noise-Stop analysis and cost estimate now? Call your local Fiberglas acoustical contractor listed in the yellow pages of the phone book, or write to: Owens-Corning Fiberglas Corporation, Dept. 3-C5, Toledo 1, Ohio.



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- Lower distracting noise in adjacent offices
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MARKETING

How U. S. Retailers Split Up the Business

Type of Retailer	Percent of Total Retail Sales					Rank	
	1939	1948	1949	1950	1951	1948	1951
Food	24.2%	23.7%	23.7%	22.8%	24.5%	1	1
Automotive	13.2	15.4	17.5	19.7	17.6	2	2
Eating and drinking places	8.4	8.2	8.0	7.4	7.5	3	3
Bldg. materials, hardware	5.7*	6.7	6.3	7.0	7.1	6	4
Apparel	7.8	7.5	7.1	6.5	6.5	4	5
Department stores	8.1*	7.2	6.8	6.5	6.4	5	6
Gasoline stations	6.7	5.0	5.3	5.3	5.6	7	7
Furniture	2.9	3.3	3.2	3.4	3.2	8	8
Drug stores	3.7	3.1	3.1	2.9	3.0	9	9
Appliances and radio	1.3	1.9	2.0	2.4	2.0	11	10
Liquor	1.4	2.0	1.9	1.8	1.9	10	11
Variety stores	2.6	1.9	1.9	1.8	1.8	12	12
Mail order (catalog sales)	1.1	1.0	.9	.9	.9	13	13
Jewelry	.9	.9	.9	.8	.8	14	14
All other retail sales	12.0	12.2	11.4	10.8	11.2		
ALL RETAIL STORES	100.0%	100.0%	100.0%	100.0%	100.0%		

Date: Dept. of Commerce.

*Not comparable with postwar figures

BUSINESS WEEK

Shifting Currents in a Roaring Tide

In 1939 U.S. consumers paid out \$42-billion at retail stores. In 1951 they hoisted that to \$150.6-billion.

This is a majestic increase any way you look at it. You might expect that at some points the retail structure would crack under the terrific pressure of handling the vast new business.

• **Without a Mummur**—Yet Dept. of Commerce figures, out recently, show no signs of crisis, no great jolts or dislocations. The store groups that had the biggest pieces of the total retail pie in 1939 still have it (table); those at the low end of the list then are there now. Some reshuffling has taken place. But retailing has proved it has the flexibility to switch from a relatively low-level to a high-level economy with a minimum of anguish.

It's dangerous to work the figures too hard. Over the years, the statisticians have switched some stores from one classification to another—some department stores have become specialty stores, for example. This makes long-term comparisons risky. Nevertheless, the general lines are clear. And from 1948 on, the classifications have stuck.

• **Shifts**—Most of the changes are not striking. Yet even small variations make

a big difference in the huge retailing field. The changes nail down in figures the shifting currents that make up the retailer's daily headache.

Two major shifts are apparent—though they are really the opposite faces of the same coin:

- The substantial advance of hard goods and building materials.

- A much less noticeable slowdown in soft goods.

Building materials and hardware made the biggest single jump between 1948 and 1951. This group climbed up two notches, from sixth ranker to fourth. Appliances and radios moved up one place, inching out liquor for the No. 10 spot. Automobiles, which made a big leap in volume of sales between 1939 to 1951, didn't gain in rank. But their upward progress is still pretty steady.

• **The Reasons**—This is all easy to explain, of course. The pent-up demand of the war years, when hard goods practically fell out of the sales picture, gave durables a fine spurt when shortages were past.

New population, the record number of new families (BW-Dec.8'51,p146), helped home building to reach new

highs. The apparently endless march to the suburbs (BW-Dec.22'51,p73) also helped sell houses. With more homes came the demand for more appliances, more furniture. As people moved out of the cities, they wanted more cars.

High incomes promoted the hard goods boom. People's pay checks are bigger. Houses, appliances, cars are big-ticket items. The buying spirit may be ever so willing, but unless the pocket-book is strong it's hard to turn that spirit into cold sales.

• **Soft Goods**—Quite naturally, as hard goods crowd up soft goods get pushed down. Two of the three retail groups that fell a notch were in the soft goods field: apparel, down from fourth place in 1948 to fifth in 1951; department stores, down from fifth to sixth. Liquor stores had a small increase in unit sales, but with fairly stable prices this wasn't enough to keep them from falling from tenth to eleventh place. Much the same thing—price stability—held gasoline stations down in seventh place while otherwise they might have risen a notch.

If you look at the percentage sales gains of the various retail groups from



A fifth of a mile straight up

This slim steel needle reaching skyward is one of the tallest structures on earth.

It is the antenna tower of Station WSB-TV at Atlanta. From the ground level to the tip of the beacon that tops it off, the tower measures 1062 feet, almost exactly one-fifth of a mile.

Topmost portion of the structure is the 57-foot FM pylon with the 200-foot TV antenna just below it. The rest of the three-sided tower, from the 800-foot level down to earth, is a supporting structure for the pylon and the antenna.

Heavy guy wires of Bethlehem galvanized strand, attached to the tower at two levels, have the main responsibility for holding it in position and bracing it against winds. In addition, a substantial amount of Bethlehem steel was utilized in providing the structural cross-bracing.

The tower's location right within Atlanta and less than a mile from the center of the city's business district means television at its best for the large Atlanta TV audience. And the great height of the tower insures maximum coverage of TV sets in a very wide surrounding area.

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VACUUM METALS CORPORATION

U. S. A.'s Sole Commercial Source of Vacuum Melted Metals



Vacuum Metals Corporation has been formed to supply specialty metals and alloys for applications of high performance in terms of physical, chemical or electrical properties. Vacuum melting techniques developed by National Research are used to produce metals of higher purity and alloys held to closer composition tolerances than ever before achieved commercially.

Organized by National Research as a wholly-owned subsidiary, Vacuum Metals Corporation now has facilities for vacuum melting more than five tons per day of metals such as copper, nickel, molybdenum or iron.

Vacuum Metals Corporation joins the other companies created by National Research such as Minute Maid Corporation, the first to make quick-frozen orange juice concentrate, and Holiday Brands, Inc., the first to make crystalline soluble coffee.

New Enterprises Through Research

INDUSTRIAL RESEARCH • PROCESS DEVELOPMENT
HIGH VACUUM ENGINEERING AND EQUIPMENT



METALLURGY • DEHYDRATION • DISTILLATION
COATING • APPLIED PHYSICS

National Research Corporation

Seventy Memorial Drive, Cambridge, Massachusetts

In the United Kingdom: BRITISH-AMERICAN RESEARCH, LTD., Head Office—Wishaw, Lanarkshire

1948 to 1951, you get an indication of why they rank where they do:

Automotive	+31.6%
Gasoline stations	+29.4
Building materials, hardware.....	+22.3
Food	+19.3
Appliances and radios.....	+18.5
Drugstores	+11.6
Furniture	+11.0
Variety stores	+11.0
Liquor	+8.1
Eating and drinking places.....	+6.0
Department stores	+3.6
Apparel	+4.5
Mail order (catalog sales).....	-1.3
Jewelry	-4.5

All the hard goods groups except jewelry either reached the median increase of 11% or topped it. Two major soft goods groups—department and apparel stores—fell well below the median.

• **Department Stores**—The downtrend is clearer in the case of the department stores. Apparel stores, with smaller sales gains, have managed to hold their own for the past two years. The department store's share of the total retail market has steadily, if slowly, shrunk. The shrinking is too small to spell much trouble. Nevertheless, it indicates that we are in the midst of some uncertain retailing currents.

The department store is in a way a victim of the changing living patterns of the past 10 years. As the great mass distribution medium, its stronghold has been the big city. But the big city is a congested place these days. The mobile-minded Mrs. Shopper can't find a place to park her car.

What's more, the mobile-minded Mrs. Shopper has gone suburban. It's true that many of the big stores have followed her to centers near the large cities.

• **Catalog Sales**—Meanwhile, the big mail order houses and chains have moved in fast with smaller retail outlets. Some 70% of Sears, Roebuck's business is now done in retail stores; about 30% of it is catalog sales. Montgomery Ward won't say what proportion of its sales are retail, but some people think it's close to a 50-50 proposition. A sidelight on what another population movement—the away-from-the-farm trend—has done to retailing: Sears says some 60% of its mail order catalog business is now urban and small town; it used to be about 80% rural.

• **Shopping Trend**—You might expect that the appeal of the one-stop shopping center would favor the department store. But shopping centers within smaller communities are giving customers the advantages of central shopping even though the stores aren't all under one roof.

Another selling point for department stores has been the extra services they offer to the customer. But their costs are shooting up, and some of them

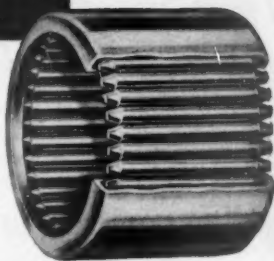


david tames goliath...

Torrington Needle Bearings are small—but mighty! A full complement of precision-ground rollers distributes loads evenly over an extra-large area... providing greater radial capacity in relation to O. D. than any other type of anti-friction bearing.

This high capacity, combined with compact size, has helped improve the efficiency of many products. So have other Needle Bearing advantages—light weight, easy lubrication and long service life. Ask our engineers to give you the whole story on Torrington Needle Bearings in terms of *your* product!

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*District Offices and Distributors in Principal Cities
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Needle • Spherical Roller • Tapered Roller • Straight Roller • Ball • Needle Rollers

**"I see you've
learned a
lesson, Jim!"**



"You've learned the value of an impressive sales letter. And you've put your message on Hammermill Bond. Your chances of making a sales-winning impression on your prospects are improved by that combination—a good letter and a crisp, clean-looking letterhead. You'll find, as I have, that..."

**IT PAYS TO DO BUSINESS ON
HAMMERMILL PAPERS**

Consult your printer about the papers that will give the best possible impression of your firm. If he recommends Hammermill Bond—as thousands of experienced printers do—you may be sure it's the right paper for you. Examine Hammermill Bond for yourself. Send for the free sample book.

**HAMMERMILL
BOND**



You can obtain business printing on Hammermill papers wherever you see this shield on a printer's window. Let the Guild sign be your assurance of quality printing.



Hammermill Paper Company, 1455 East Lake Road, Erie 6, Pennsylvania.
Please send me the sample book of Hammermill Bond.



Name _____

Position _____

(Please attach to, or write on, your business letterhead.)

BW 3-50

LOOK FOR THE WATERMARK

IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC

have been trimming these services. Macy's may be the classic example of how hard it is for a big, unwieldy plant to cut costs—to distribute huge volumes of goods efficiently at a low price with the services thrown in (BW-Mar.22'52,p32).

• **Supermarket Boom**—Because the figures don't break down easily, the great supermarket boom shows up only indirectly in the Dept. of Commerce data. That phenomenon may help explain why food sales in 1951 took just about the same proportion of the total as they had in 1939: Supermarkets traditionally are low-margin operators. The big food stores have certainly contributed to the long-term decline in drugstore growth.

And they haven't helped the variety stores. As a greater number of non-food items turn up on supermarket shelves, it seems as though the food stores would necessarily increase their share of the pie.

**Jane Engel Saves Money
By Giving Wares Away**

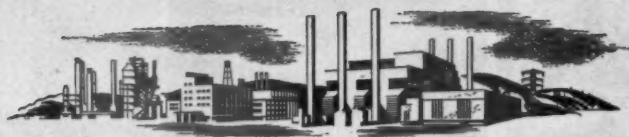
Jane Engel, New York specialty shop, paid out some \$8,000 worth of merchandise dividends recently and liked doing it. It's pleasant when a new policy works the way you hope it will.

The store set up its bonus plan last winter (BW-Dec.15'51,p40) to reward stalwart-minded customers who returned less than 10% of their purchases. It hoped to accomplish two things: (1) cut returns, a costly bugbear to retailing, (2) bring in more sales. It did both, reported George Engel, Jr., secretary and general manager.

• **Worth-While?**—In December, 1950, the shoppers changed their minds to the tune of 16% of total sales; in December, 1951—first month of the bonus plan—returns had dropped to 12.6%. For January they were 20.6% last year, against only 15.6% this year. This February they were down to 13.5% from 16.1%.

The sales volume figures made good reading, too. Specialty store sales for the week ended Mar. 15, 1952, were down 13% from the corresponding week in 1951 in New York City. At Jane Engel, sales broke even that week. While a citywide decrease was reported for the first two months of this year, Jane Engel was 3% ahead for January, 9% ahead for February.

The store is cautious about whether the plan will finally prove worth the cost. Right now the club has some 7,600 members (of whom 3,500 earned a dividend). If the store reaches its goal of 20,000 members, the bonus may run pretty high.



CLIENT CONFIDENCE

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CALIFORNIA RESEARCH & DEVELOPMENT COMPANY	REVERE COPPER AND BRASS INCORPORATED
COLUMBIA STEEL COMPANY	SALT LAKE PIPE LINE COMPANY
CONTINENTAL CAN COMPANY, INC.	SALT LAKE REFINING COMPANY
CONTINENTAL OIL COMPANY	SALT RIVER POWER DISTRICT
FOOD MACHINERY AND CHEMICAL CORPORATION	SHELL CHEMICAL CORPORATION
GENERAL MILLS, INC.	SHELL OIL COMPANY
GENERAL PETROLEUM CORPORATION	SOCONY VACUUM OIL COMPANY, INC.
GULF OIL CORPORATION	SOUTHERN CALIFORNIA EDISON COMPANY
HAWAIIAN ELECTRIC COMPANY	STANDARD OIL COMPANY OF CALIFORNIA
HERCULES POWDER COMPANY	STANDARD OIL COMPANY, THE (OHIO)
HILLS BROS. COFFEE, INC.	TENNESSEE GAS TRANSMISSION COMPANY
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NORRIS-THERMADOR CORPORATION	UNION OIL COMPANY OF CALIFORNIA
THE OHIO OIL CO.	UNITED STATES RUBBER COMPANY
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IRAQ PETROLEUM COMPANY, LIMITED	UNITED STATES ARMY AND NAVY ENGINEERS

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CELLER opposes price fixing, but . . .



DARGAVEL's strategy is gaining, and . . .

Balance Shifts on Fair Trade

The druggists' lobby gets some people's backs up, but it's winning votes in the House, nevertheless. The fair traders' McGuire bill is gaining ground.

Fair traders are giving a wonderful object lesson in how to lose friends and still influence people. They have alienated a flock of congressmen with their high-handed lobbying tactics. Nevertheless, they are getting closer to the only thing they want in life—namely, a bill that will restore the teeth knocked out of the Miller-Tydings act last year by the Supreme Court.

By last week they had not only bludgeoned two House committees into reporting out two bills, but had also bullied the House Rules Committee into giving preference to the bill they favor. Both bills—McGuire and Keogh—do roughly the same thing: make resale price maintenance contracts binding on nonsigners. But the McGuire bill is far stronger.

The lobbyists figure that, when the McGuire bill gets to the House floor, election-year pressure can be counted on for at least 300 votes.

• **Behind the Drive**—Dynamo in the fair-trade lobby is the National Assn. of Retail Druggists, and the power behind NARD is John W. Dargavel, its executive secretary. Through his NARD Journal, Dargavel has fought to reinstate fair trade since the day last May when the Supreme Court's *Schwegmann* decision invalidated it (BW—May 26 '51, p. 25).

Dargavel hammered away at his druggists to pepper congressmen with wires, letters, phone calls, and personal visitations. Dargavel's campaign has been a

model of efficiency for other lobbyists.

• **Good Trick**—The NARD problem wasn't just to get a bill that would make the nonsigner provisions binding. The group had to get a bill written so it would be referred to a friendly committee.

Normally, any bill modifying the Sherman Antitrust Act or the Miller-Tydings amendment would be referred to the Judiciary Committee. But Dargavel knew that chairman Emanuel Celler was one of fair trade's most outspoken foes. So his lawyers hit upon the idea of writing a bill that would amend the Federal Trade Commission Act and thus come under jurisdiction of the House Interstate and Foreign Commerce Committee. Chairman Robert Crosser of that committee is a personal friend of Dargavel. But because of an agreement he had made with Celler not to report out a fair trade bill, Crosser got Rep. John McGuire to introduce the bill.

Next step in NARD's campaign was a flood of letters and telegrams that didn't let up until the bill was referred to Crosser's committee. Celler didn't protest at this point because he thought his agreement with Crosser would keep the bill bottled up. Meanwhile, Crosser put a strong man, House majority whip Percy Priest, in charge of the subcommittee that would hold hearings.

Celler had underrated Dargavel and McGuire. The druggists began bombarding members of the subcommittee, and about the same time McGuire fell

Presenting the New Dual-Action Comptometer

One machine that gives you the advantages of two!

Designed to be "split" in two—so your operator can calculate problems on one side—and accumulate results on the other! And yet it converts instantly into a full-keyboard Comptometer Adding-Calculating Machine.

The only 2-in-1 machine with these exclusive features:



TWO INDEPENDENT KEYBOARDS!

—the new Dual-Action Comptometer can be split at any point into two completely independent registers!

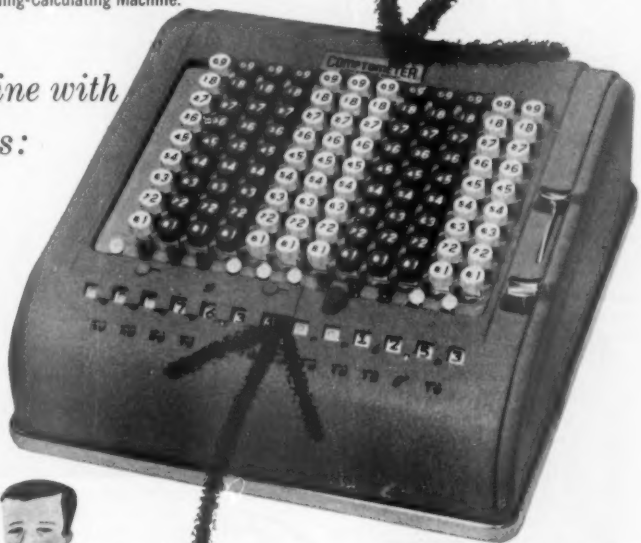
TWO SEPARATE ANSWER REGISTERS!

—sub-totals can be cleared from the right half of the machine without disturbing accumulated totals at left!



TWO CANCELING LEVERS!

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Now available in electric and non-electric models.

PLUS

- 3-way Error Control—
- Direct Action—Floating Touch
- Giant Answer Numerals—
- both answer dials at same eye level.

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PIONEER in Specialloy Steels
Allegheny Ludlum



in love with the idea of having his name on an important piece of legislation. The combination was unbeatable. McGuire bulled the bill through to a vote and got it reported out.

• **Recriminations**—At this point, Dargavel turned his druggists loose on the whole committee, which resulted in another blitz victory. When Celler asked Crosser why he had failed to keep the bill bottled up, Crosser replied: "I tried to keep my agreement, Manny, but they overrode me and forced my hand."

Meanwhile, Celler was rushing hearings on the Keogh bill in his Judiciary Committee, for fear the Rules Committee might give the McGuire bill a green light before rival bills were ready. His committee voted out the Keogh bill, although Celler himself voted against it.

Recently, Celler put up a third bill, his own loss-leader bill, which would merely prohibit a retailer from selling for less than cost.

• **Strategy, Two Ways**—There are two smart aspects to Celler's strategy in introducing his own bill.

(1) Throughout the Congressional hearings, the fair traders trained most of their guns on the evils of loss-leading. Fair trade, they argued, prevents the small retailer from being run out of business by "predatory" price cutting. So Celler, in effect, will be able to say, "O.K., if that's what bothers you, here's the bill that will take care of it."

(2) If McGuire gets bogged down with amendments, Celler can offer his bill as a substitute.

The Celler bill would make the fair traders unhappy. Although they've concentrated their arguments on predatory price cutting, they really want a law that would do much more than merely limit loss leaders.

• **No Substitutes**—But the fair traders don't expect to have to accept any substitutes. Public relations man Maurice Mermey, who has helped mastermind the druggists' campaign, says, "It's the McGuire bill or nothing—the friends of fair trade will see to that."

• **What Next?**—But even Mermey can't be sure about what will happen next. For one thing, the fair traders have riled a lot of people. In Rules Committee hearings, for example, Celler complained of the personal vilification heaped on him. And Rep. E. E. Cox of Georgia thought NARD should be rebuked for its high-handed tactics.

As for the Senate and the President, those are going to be even harder nuts for Dargavel & Co. to crack. Only a third of the Senate members are up for reelection next fall; they're less susceptible to pressure. And Truman is almost certain to veto either McGuire or Keogh if it should get through.



Commuting

NOW...and THEN

Back in the cable car days they probably commuted from upper to lower Broadway. Today, they come from the Bronx, Brooklyn, Long Island, Westchester, New Jersey, into the business heart of New York.

Now, even more than then, with the increased tempo of transportation, a dependable electric system is important as the motivating power, the source of adequate lighting.

Recently, Ward Leonard VITROHM bracket terminal resistors were installed in the fluorescent lighting systems of the new subway cars for three major reasons.

First, they could withstand the

wear and tear of constant vibration and shock of starts and stops.

Secondly, they could be installed faster and easier in limited space.

In the third place, although these resistors last indefinitely, they must be readily replaceable in case of accidental damage.

The builder provided pre-wired terminal studs. By using a bracket terminal resistor it was possible to combine mounting and electrical connection in one simple, fast installation for the 600-volt d-c current.

Ward Leonard's engineering department can help you solve your electric problems, too, by the proper selection or adaption of controls.

Headlines of 1891

H. WARD LEONARD

ELECTRIFIES CABLE CAR SYSTEM

The Seventh Avenue cable car system in New York was electrified in 1891 by H. Ward Leonard, founder of Ward Leonard Electric Company. In 1952, Ward Leonard Electric Controls are still setting precedent in performance.



Photograph Courtesy New York Historical Society

**WARD LEONARD
ELECTRIC COMPANY**

Result-**E**ngineered Controls Since 1892





**PACKAGING
COSTS CUT FROM
\$4.70 to \$1.31**

To avoid the mess and cost of "slushing" diesel parts with oil, a big locomotive firm adopted Angier VPI. Now cylinder heads (above) are protected for 72% less cost. If YOU ship or store metal in any form, send for "VPI Facts" today.



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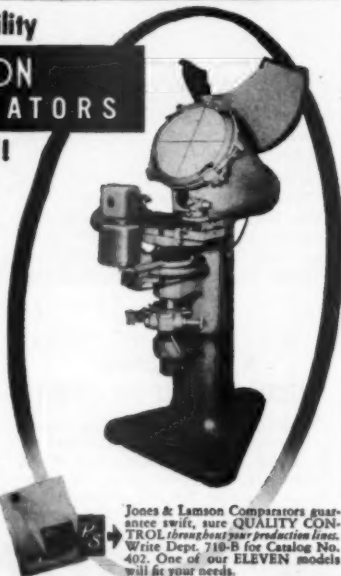
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Jones & Lamson Optical Comparators are designed and built like rugged machine tools to withstand vibration and hard use. Yet they have the built-in accuracy to satisfy the most exacting laboratory standards.

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Jones & Lamson Comparators guarantee swift, sure **QUALITY CONTROL** throughout your production lines. Write Dept. 710-B for Catalog No. 402. One of our ELEVEN models will fit your needs.

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Machinists Tool Craftsmen Since 1835

OPTICAL COMPARATOR DIVISION
Dept. 710-B

Spreading Out

RCA diversifies its line of appliances to buck the sticky market. Promotion is also speeded up.

Radio Corp. of America, like many another company, has bumped into the day of the "hard sell" (BW—Mar.15'52, p22) in the home appliance end of its business. It has the double headache chronic to the industry: the seasonal market for such items as radios, and recently television (BW—May5'51,p86), and the heavy degree of saturation of some appliance lines (BW—Mar.15'52, p30)—notably radio.

This headache was all the more acute because the RCA Victor Division, which turns out what RCA calls its home instrument lines, made only radios, television sets, and phonographs until a few months ago. It had cashed in heavily on these lines in the past. But in the face of today's balky market, it had to take further steps.

• **The Cure**—The company's answer boils down to two principal lines of attack:

- A fuller line of appliances.
- Aggressive selling.

The fuller line is already on the way. Word of a new RCA appliance got out last summer (BW—Jul.21'51,p94). In October the company announced its first move would be into home air conditioners. There are three models, designed for rooms of various sizes. They range from \$229.50 to \$399.50 at retail. Early this year shipments started going out; by now each of the 63 RCA Victor distributors who are handling the air conditioners have received at least a carload of them. In some cases, these air conditioners are already on the dealers' shelves.

Frank M. Folsom, president of Radio Corp. of America, gave a strong hint last week that the air conditioner was only the beginning. He told his distributors that it was perhaps the first of many more new RCA lines to come. The second product is already set to go: a room dehumidifier, designed for basement rooms and other damp places; it will operate in closed areas up to 8,000 cu. ft.; suggested list price is \$139.50. First shipments of the dehumidifier will go out late in April.

• **Saturation**—Company spokesmen refused to be pinned down on what other products it had under its hat. But it's clear that they have a sharp eye on the saturation figures. That's why air conditioners look like a good bet. There are some 39-million electrified homes in the U.S. In January, 1952, Electrical Merchandising, a McGraw-Hill pub-



There's a big difference in business forms, too!

One business form may look very like another. How can you be sure, then, of getting the best? Ninety-three of America's 100 largest firms, and thousands of others, have found a way to be sure of the *right* forms. They rely on Standard's "unseen specifications"—the skill and precision developed in 40 years of specialized forms manufacturing. Standard Register made the first marginally punched continuous forms.

These companies have found a big difference in the analysis and planning *behind* business forms—for Standard's men concern themselves with the sys-

tem's purpose and the whole procedure, to develop *better-working* papers.

These firms know, too, that form design based on years of experience saves thousands of needless operations.

They've learned that Standard's application of the right forms, mechanical devices and equipment . . . smooths and speeds the entire process of writing records.

Have you a forms problem? Remember this difference. Phone Standard Register in your city. Or write The Standard Register Company, 703 Campbell St., Dayton 1, Ohio.



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PAPERWORK SIMPLIFICATION:
What happens when better business forms are scientifically applied.



Insurance company writes check (and simultaneously posts journal) at the rate of 150 per hour against 400 per day previously, thanks to continuous operation of the two forms on accounting machine, with Standard's Dual Feed.*



A five-part Kant-Slip continuous ticket in Form Flow Registers saves a national airline \$60,000 annually.*



Stock certificates in continuous forms, lithographed on crisp bond, enable Carolina organization to type from 1200 to 1500 certificates a day against former 700. Automatic Line Finder advances forms to fill-in position in split second.*



Combining several related records into one, for one writing, one handling, a Standard Register Zipset so simplified paperwork that this company now handles 2000 more accounts per office clerk.*

*Name and full story on request.
Write Standard Register.



in WIRE ROPE, too, it takes the RIGHT KIND of muscle

The long flat muscles of the black panther give him the spring and suppleness he needs to survive in his particular environment. They're ideal for the job they're called upon to perform.

So, too, with wire rope! Specific jobs call for the right kind of muscle; the right construction and lay of the rope; the right grade of steel and size of wire . . . to best withstand the destructive forces encountered.



LOOK FOR
THE YELLOW TRIANGLE
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Wickwire Rope gives you the benefit of long experience and specialized know-how which assures you of exactly the right kind of rope your particular job demands.

For additional information write or phone our nearest sales office.

THE COLORADO FUEL & IRON CORPORATION—Arlene (Tex.) • Denver • Houston • Odessa (Tex.) • Phoenix • Salt Lake City • Tulsa

THE CALIFORNIA WIRE CLOTH CORPORATION—Los Angeles • Oakland • Portland • San Francisco • Seattle • Spokane

WICKWIRE SPENCER STEEL DIVISION—Boston • Buffalo • Chattanooga • Chicago • Detroit • Easton (Pa.) • New York • Philadelphia

WICKWIRE ROPE



PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL & IRON CORPORATION

lication, reported that this market was only 0.8% saturated.

• **Heavy Selling**—To do a sales job, the company is heavily promoting its air conditioner on radio and TV. In May it's starting a big pitch to the consumer with a two-page spread in Life magazine. The budget for advertising in Life will run in six figures this year.

RCA Victor is also hammering on a prime sales point, one where some dealers have found themselves in a weak position: the matter of servicing appliances. When a dealer sells an air-conditioning unit, he may also sell the customer a service contract with RCA Service Co. For \$29.95, this contract will cover the cost of installation, service, and the first-year warranty. To the dealer, this means full profit on every sale.

All this emerged from a distributors' meeting in New York City last week. It was the windup of a coast-to-coast series of such meetings—13 in all—to put the air conditioner over. In well-peppered pep talks, the distributors were told how to "lead the way with RCA."

One other thing came out at the meeting. RCA has a wary eye on the competition. Though manufacturers think of price cutting only as a last resort, RCA has already whacked \$20 off the suggested retail prices of its two smaller models. Why? A competitor had knocked down his price


MARKETING BRIEFS

Food Fair, with 150 stores in operation, plans to open at least 20 more supermarkets in 1952. For the 40 weeks ended Feb. 2, 1952, the chain's sales were \$192.4-million against \$152.4-million for the same 1951 period. Earnings dipped, however, from nearly \$3.9-million to \$3.3-million.

Cash for blood: Holden's clothing store in San Francisco is accepting a blood donor's certificate as a \$10 cash payment on any suit, topcoat, or sports coat for the month of March.

Sporting goods dealers believe in night shopping. Nearly 70% of them are open regularly at least one night a week, Sporting Goods Dealer, a trade publication, reported. And 16.7% of the stores surveyed are open six or seven nights.

Chlorophyll smokes are the latest development in the keep-sweet rage. Sterling Tobacco Corp., New York, puts back into its Fairfax cigarettes the chlorophyll that's lost during curing. And the use of triethylene glycol as a moistening agent will keep down respiratory ailments, the company thinks.



Is there a press that requires less floor space?

Rising costs of new construction and increasing production demands put every square foot of factory floor area at a premium.

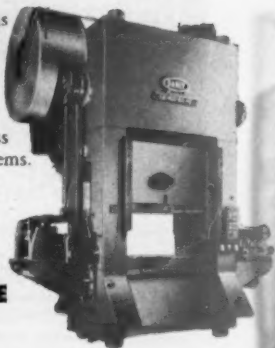
Danly Presses, all designed for space efficiency, help you get the most out of the floor area you have. The Danly Autofeed Press shown here is particularly good for space efficiency . . . extra rigid construction and long, precision gibbing permit combination of separate stamping operations into one die in one press! Higher operating speeds at higher tonnages make it easier to meet schedules too. Multiple press set-ups are often replaced!

Write today for information on Danly Autofeed Presses . . . and remember, Danly engineers are at your service to discuss your specific press selection, installation or operation problems.

DANLY MACHINE SPECIALTIES, INC.

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**DANLY HELPS MANAGEMENT SOLVE
TODAY'S CAPACITY PROBLEMS!**



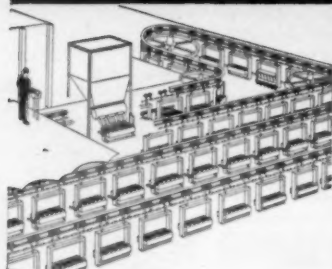
Max. 5000 lb. Presses 50 to 3000 Tons



DANLY

IT COSTS LESS TO RUN A DANLY PRESS!

2 MEN
produce
18 TONS
BRASS INGOTS
PER SHIFT



By conventional methods adding 18 tons of ingots to plant capacity would have increased the payroll by 20 men per shift and required considerable more foundry space.

It was done with just 2 additional plant men in a space approximately 50 feet by 100 feet.

HOW?

1. By the scientific integration of processing and materials handling.
2. By designing the plant structure and the integrated processing equipment concurrently, thus eliminating all structural obstacles.

This is a typical MHS project showing what can be done to achieve PRODUCTION CONTROL with maximum economy. If you have such a problem, we might be able to contribute some usable ideas—no obligation, of course.

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Systems, Inc.

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MANAGEMENT



OLD BUSINESSES get new titles. Presidents Hobart C. Ramsey (left) of Worthington Pump & Machinery Corp. and John Jay Hopkins of Electric Boat Co. are prime movers in name changes scheduled for the companies. Both executives have sharp ideas on . . .

What's in a Corporate Name?

Ever since Hobart C. Ramsey became president of Worthington Pump & Machinery Corp. in 1949, he has been plugging for a change in the company's name. He gives pretty good reasons:

- Most people know the company as Worthington Pump, with emphasis on the pump. Since the early 1930s that's been a misnomer. Pumping machinery makes up only about a third of the business.

- The full name is not only a misnomer, it's too long to be handy.

- For years now the company has been using the simple name Worthington to identify its products. It is logical to make that official.

This week stockholders finally went along with Ramsey. They approved a change in the name at the company's annual meeting. From now on it's Worthington Corp.

- More to Come—Worthington becomes the first big company this year to get a new handle. It won't be the last. Next month Electric Boat Co.'s president, John Jay Hopkins, will ask stockholders to approve a new title for their company. The proposed name: General Dynamics Corp.

It is a good bet that before the year is out other companies will have changed their corporate names. Every year since the war there have been two or three major name changes. Here are some of them:

Daystrom, Inc., used to be American Type Founders, Inc. In 1946 it became ATF, Inc., finally ended up with its present name in 1951. (It adopted the

name of a subsidiary it bought in 1945.)

Georgia-Pacific Plywood Co. took that name in 1951. Formerly, it was Georgia Hardwood Lumber Co., then Georgia-Pacific Plywood & Lumber Co. Last year it dropped the lumber.

Pabco Products, Inc., a roofing and building material company, started as The Paraffine Companies, Inc. It used Pabco as a trade name, made it the official company name in 1950.

Armco Steel Corp. was the American Rolling Mill Co. until 1948. Now it's just Armco, the trademark contraction of what was once the full title.

Capital Airlines, Inc., figured its original name, Pennsylvania-Central Airlines, Inc., didn't do justice to its interstate routes. In 1948 it became Capital Airlines (Washington is headquarters for the company and the focus of most of its main routes).

Sunbeam Corp. did such a good selling job on its trade name that the corporation adopted it in 1946. Before that, it was Chicago Flexible Shaft Co.

Running down this list gives a good idea of the reasons companies change their names. Sometimes their chief products become so well known by a trade name that it is good business to adopt the trade name officially (as in the case of Sunbeam and Pabco). Or the nature of the business changes so through diversification that the old name doesn't fit. Usually, the cause is a combination of the two.

- Can't Be Beat—Of course, if a company is lucky it will pick a name that can't be improved on. General Motors Corp., for instance, could hardly have

to avoid trouble—don't invite it!

One way to avoid costly machine tool breakdowns and down-time is to head off the trouble before it starts—with a positive preventive maintenance program.

Another way—and an important one—buy the machine that is backed by an industry-wide reputation for long years of trouble-free service.

When the going gets tough—put it on the Warner & Swasey!



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Buy
Capper's
Farmer



a better title. The same goes for General Electric Co.

Names don't have to be descriptive to be good. Textron, Inc., a World War II baby, gets the general idea of textiles across, but the real glamor comes from the hint of synthetics and chemicals.

• **Diversification**—Worthington figured it didn't need a descriptive name. The name, well known in industry, comes from Henry R. Worthington, who founded the company in 1840. What president Ramsey wants to do is de-emphasize the pump. He was in almost from the beginning of Worthington's diversification program, which began after the Great Depression. As vice-president of manufacturing, he helped push the company into compressors, engines, refrigeration, and air conditioning.

Worthington is still the world's biggest pump maker, but now all its dollars aren't bet on the capital goods industry. In earlier days, as Ramsey puts it: "We were a capital goods manufacturer selling to other capital goods manufacturers, two stages removed from the more stable consumer industries."

• **New Step**—After the war Worthington took another step in its long-range plans to bridge the gap between capital goods and consumers. It brought out a line of coin vending machines for soft drinks (the kind that dispense Coca-Cola into a paper cup). Because of the Korean War, that part of the business has been held back, but Ramsey figures it will become a big portion once material restrictions are lifted.

• **From Submarines**—Electric Boat's story is more complicated, but the reason is essentially the same: diversification. Making submarines and PT boats is only part of the business. In an all-out peace, it could become even less.

The company is still deep in submarine work: the Navy picked it to help develop an atomic sub. But since World War II Electric Boat has been hunting for other lines to level out its business curves. In 1946 it went far afield to build offset printing presses.

In 1927 the company bought Canadair, Ltd., which now makes Sabrejets for Britain, Canada, and the U.S. (BW—Mar.22'51,p.73). Today Canadair is bigger than the rest of Electric Boat put together. The rest includes structural steel for bridges, and machinery for automatic packaging and bottle filling. All told, Electric Boat has a military backlog of \$333-million.

As chairman and president, Hopkins gets credit for choosing the name General Dynamics. He thinks it is a better description of (1) what the company does today and (2) what it plans to do in the future. (One hint: It has organized an as yet inactive company called General Atomic Corp.)

Prizes in Goods...

... now go to production workers as well as salesmen. It's a Westinghouse idea to save materials.

Merchandise incentives for salesmen are big business: In a year the retail value of prizes that management awards for beating sales quotas runs close to \$50-million. A single prize-distributing company—Cappel, MacDonald & Co., Dayton, Ohio—annually distributes prizes worth \$14-million for client companies.

The theory behind the schemes is this: A salesman will work harder to win a luxury prize (which he ordinarily wouldn't buy) than if he's paid off in cash for the extra effort.

• **Saving Materials**—Now Westinghouse Electric Corp.'s Lamp Division is extending the idea to the production line. An 11-month program, put together by Cappel, MacDonald, has just got under way at the lamp plant in Bloomfield, N. J., as a sort of test run.

The primary aim is to reward production workers for extra efforts in saving critical defense materials for the plant. That's important right now to the lamp plant, which uses such hard-to-get items as tungsten, molybdenum, brass, and copper. Westinghouse asked Cappel, MacDonald to work out a plan somewhat similar to the sales incentive programs. Here's what they came up with:

The 850 employees at Bloomfield get a catalog showing the number of points necessary to win each merchandise prize. Every month an employee's points are totted up, and a "point check" is put in his pay envelope. He sends the check to Cappel, MacDonald and indicates the prize he wants. They in turn send him back his chosen prize plus a point-check for any leftover points.

• **How to Score**—In a company brochure, Westinghouse has set down definite numbers of points for each part of the material-saving program. Thus points can be won in a slogan contest on cutting down waste material. Others go for suggestions approved by a committee.

Prizes run all the way from tie racks (130 points) to kitchen chairs (250 points), bicycles (8,600 points), and TV sets (44,000 points).

Westinghouse has broadened the scheme to include payoffs for attendance (100 points for each month without a lost day, 325 points for two months), getting to work on time, better quality (thus cutting rejects), and safety. Be-



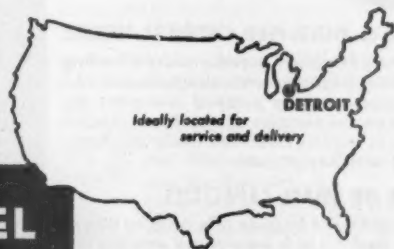
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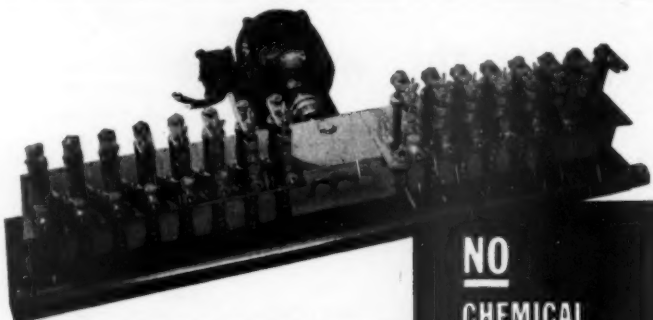
If you doubt that *any* desk could ever be a joy to work at, then you owe yourself the wonderful revelation that comes with owning a Steel Age Executive Desk. The way it adjusts to your most comfortable working height . . . the copious drawer space . . . the spacious corroleum top . . . and the sturdy, honest feel of its made-for-lifetime construction. These marks of quality all add up to a kind of comfort, efficiency and *pride* you may never know

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sides individual effort, the scheme pays points for safety and good housekeeping practices by sections (100 points for each man in the best section).

Guarding Secrets

U. S. tries monthly mailings to keep industries alert to the need for greater plant security.

A group of Ordnance Dept. officials recently repeated a trick that was used effectively in World War II. Unannounced, the officials visited a Cleveland defense plant. Without having shown a card, they were ushered into the plant to see a "John Smith." By the end of six hours, they had taken measurements all over the building, climbed into finished war equipment, looked at engines. At one point, they got the help of a foreman who explained a mechanism they didn't understand.

At the end of the tour, they showed up in the plant manager's office and told him what they had seen and done. As you would expect, you can't get near that plant today without clearance.

• **Promotion**—Checkups like that have convinced defense officials that security is a real problem these days. In an effort to do something about it, the Munitions Board is giving another old method a new try. The gimmick: mailing monthly batches of security promotion material to any plant that asks for them. The service is free; just write to the Munitions Board in Washington, specifying the material you want.

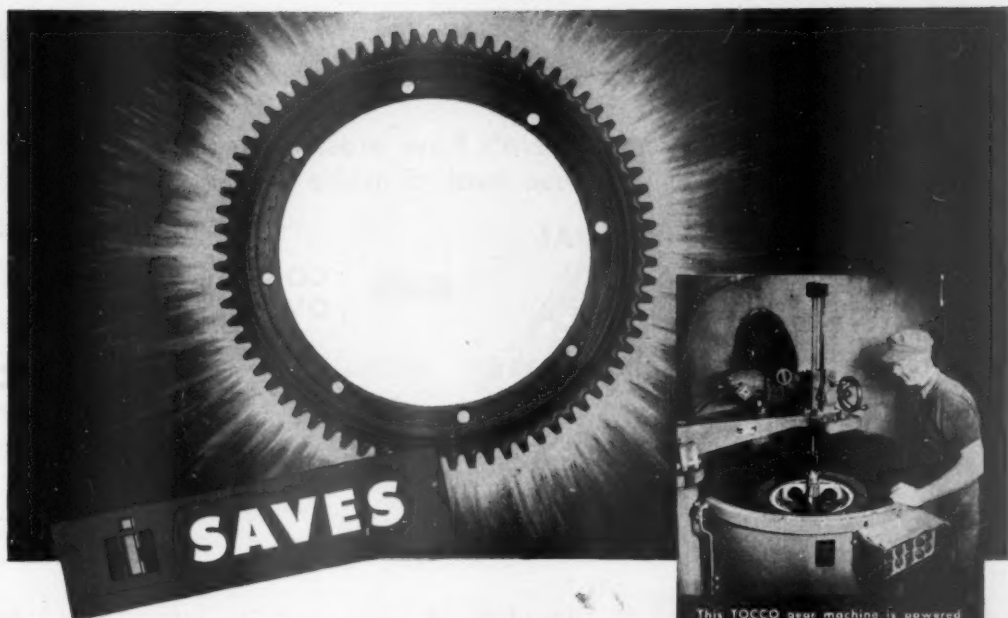
The initial mailing list includes 1,600 companies that responded to an invitation last December. The material includes three-color posters, folders to stuff in pay envelopes, and a cartoon and statement by Munitions Board chairman John D. Small.

The same system was used in World War II, but then industries had to cope with material from three different services. This time, one agency will handle it all, according to Col. LeRoy Hudson, who is running the program.

• **Interest**—Hudson thinks there's a lot of interest in plant security. He points out that the Government Printing Office has sold over 400,000 copies of three Munitions Board pamphlets: on plant protection, safeguarding classified material, and how to be cleared for handling classified military information.

Any industrial plant can get on the new mailing list. There are no restrictions on use of the material.

The Munitions Board has also started issuing an Industrial Security Letter to clarify Defense Dept. security rules and policies.



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PRODUCTION UP—Engineers at the Milwaukee Works of International Harvester Company have adopted TOCCO for hardening final drive gears for famous International Harvester farm tractors. TOCCO increases production on the gear shown here from 14 to 35 per hour, 250% faster than conventional heating method, reduces job from a 3 shift to 2 shift operation, even with increased production schedule. Heating time is 35 seconds; oil quench, 60 seconds.

COSTS DOWN—TOCCO cuts cost—saves \$82,507 per year on application shown above. TOCCO makes possible use of C-1050 A.R.R. steel instead of expensive A-8645-H alloy steel previously required. TOCCO also eliminates shot-blast, formerly needed to remove scale, and extra machining operations that used to be necessary to compensate for distortion.

Gear shown is 18½" O.D., width of face is 2", weight 34 pounds, 73 teeth. Hardness obtained is 55-66 R.C., using 140 K.W. of 10,000 cycle power.

Our Engineers can probably find applications in your plant where TOCCO can increase output and reduce unit costs.



This TOCCO gear machine is powered by a 150 K.W., 10,000 cycle motor-generator set. Photo—courtesy of International Harvester Company.

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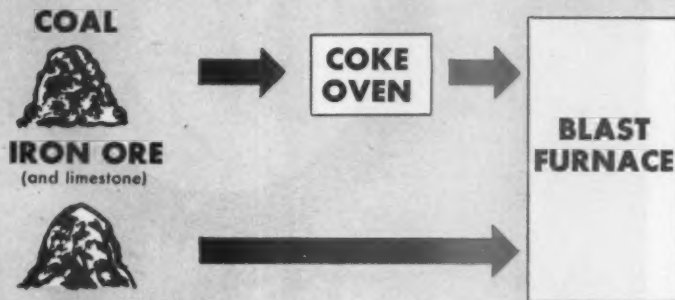
Write for literature and name of nearest dealer

TYPHOON
Air Conditioning Co., Inc.

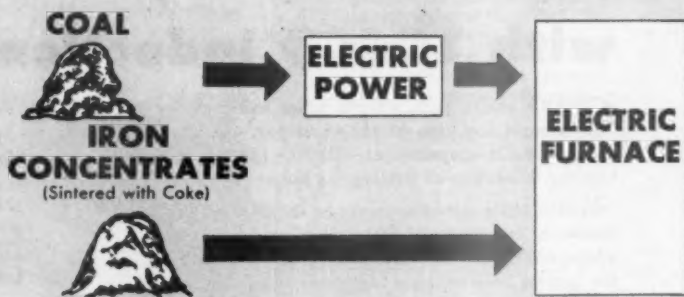
747 Union Street, Brooklyn 15, N.Y.

RESEARCH

1 Here's how most companies use coal to make steel:



2 Coal Producers and electric companies this as another way of steelmaking:



Electric Furnace: New

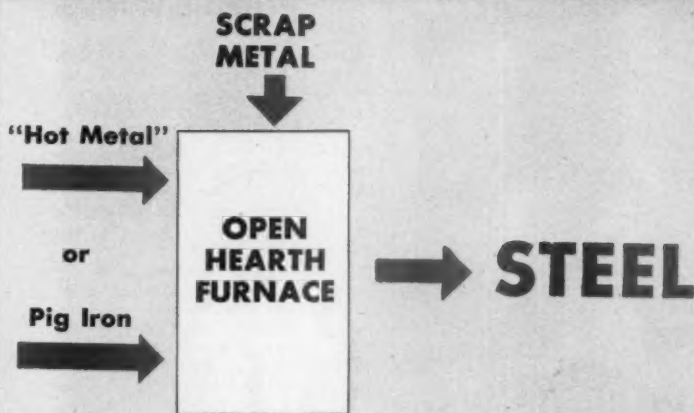
It takes a lot of coal to make a ton of steel. And the steel industry is turning out an awful lot of steel. But, for one good reason, the coal operators aren't cashing in on the ever-increasing demand. Most steel makers today own their own mines, which supply enough metallurgical coal to feed their furnaces.

The coal industry, however, is still hopeful of grabbing its share of the steel boom. Last summer bituminous coal producers teamed up with 14 electric utility companies in a tremendous research project that may create an additional demand for coal in steel

making—to generate the power to run electric furnaces.

• **Progress Report**—At its Chicago meeting, Bituminous Coal Research, Inc., brought its members up to date on the project that got under way last September. At that time a committee of BCR and the utilities (they farmed out part of the job to Battelle Memorial Institute) went exploring into the technical and economic factors of the electric furnace method of making steel, as opposed to the open hearth method.

• **No Dream**—What the researchers are trying to prove is that the electric



are promoting

→ **STEEL**

3 Comparative costs of the two installations:

Coke oven	\$ 5-Million
Blast Furnace	\$20-Million
Open Hearths	\$10-Million
	\$35-Million

vs.

Electric Furnace	\$5.5-Million
------------------	---------------

BUSINESS WEEK

Customer for Coal Industry?

furnace can produce ordinary, low-carbon steels just as efficiently and economically as the open hearth, which most steel makers use now. In many cases, they say, the electric furnace's relatively low capital cost, accurate control, and high production rate overcome whatever advantages the open hearth has in size and lower fuel costs.

What has really sent the hopes of the coal men and utilities kite-high is the fast-moving shift (BW—Dec. 15 '51, p. 52) from high-grade direct-shipping ores to lower-grade ores. These have to be beneficiated to raise their iron content

to a usable level; actually, the beneficiated material has a higher iron content than direct-shipping ore.

Where does the electric furnace come in? The electric furnace can reduce these beneficiated ores to steel in a single operation. It completely bypasses the coke oven and blast furnace, two basic and time-consuming steps in the open hearth method, where ores have to be reduced to pig iron before they can finally be made into steel (chart, above).

• Big Harvest—True, the BCR-utilities committee has some problems with the

specialists in

CMP

THINSTEEL

TRADE MARK

These three steel warehouses normally carry in stock the complete range of cold rolled strip steel specialties made by The Cold Metal Products Company, including low carbon and high carbon analyses, tempered spring steel and stainless grades in the 300 and 400 series. Supply problems are now very difficult. Currently, shortages exist in some grades and sizes, but within the limits of inventory possibilities strip steel fabricators continue to find justification for the descriptive phrase long identifying all Precision produced CMP products—"More feet per pound—more finished parts per ton."



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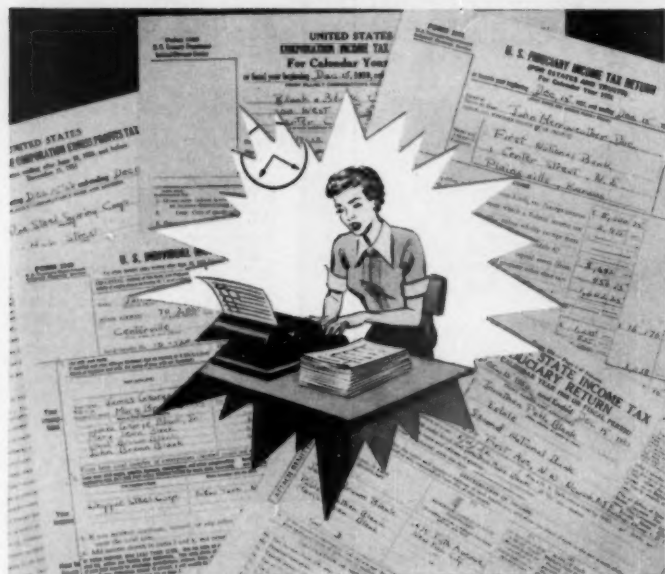
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"... both groups will reap a rich harvest..."

RESEARCH starts on p. 50

electric furnace to straighten out first. But if it comes up with some happy solutions, both groups will reap a rich harvest:

- For the utilities, it means a vast potential for power sales: Steel producers will need a lot of voltage to run the electric furnaces.

- For coal operators, it means a tremendous lot of coal going to the utilities to generate this power.

The utilities, on the other hand, buy all their coal on the open market. C. F. Ramseyer, an authority on the two steel-making methods, estimates that the utility companies would have to buy 6-million extra tons of coal a year if 25-million additional tons of steel ingots were made by the electric furnace method.

That would hike annual coal use by about 1%—a tremendous boost for the coal industry in these days of a shrinking market.

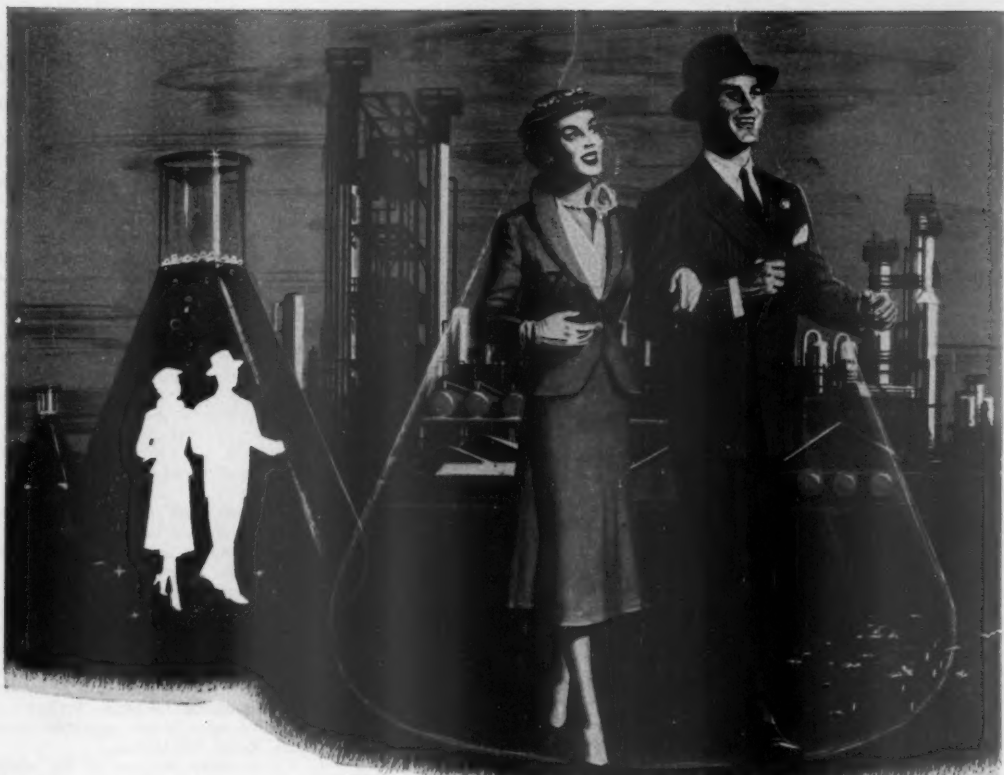
The BCR-utilities group clearly sees two kinds of places that electric furnaces could be used: (1) fully integrated operations that need additional steel-making capacity and don't have space for more open hearth, even though they could add some electric furnaces; (2) areas that have steel fabricating shops, but no local steel-making facilities. The general trend of industry to migrate westward away from the big steel-making plants is creating a basis for decentralizing the steel industry, to offset huge freight costs.

- A Novice—The coal operators and utilities aren't the first ones to enter the field of research into the electric furnace by any means. It has already been pretty well dug up by electric furnace makers and by independent engineers and researchers for steel companies.

Still, the electric furnace method of making steel is fairly new in the industry. The first furnace operated in 1906, but the method didn't really get its start till around 1910.

- Bigger and Better—The first units were small ones and were used solely to produce high-quality, tool steel. It's only in the past 15 years that much thought has been given to using the electric furnace to make ordinary carbon steel. That came about only after electric power became available and furnace makers developed larger units with top-charging furnaces.

Today manufacturers are turning out electric furnaces of as much as 125-ton capacity. With these larger units, say Ramseyer and H. W. McQuaid, Cleveland steel consultant, the electric fur-



Starting Point **FOR THE EASTER PARADE**

Synthetic fabrics step out in style this Spring...literally from the chemical plant to the promenade. This year you'll find them in crease-proof and wrinkle-proof suits and dresses, shirts and blouses that wash beautifully yet never need be ironed, stockings that resist runs, and socks that won't shrink.

The sources of synthetic fibers are as varied as their properties...they have in common only their origin in chemistry. As such, they require enormous quantities of chemicals in their manufacture. Throughout the miraculous growth of synthetic textiles, Mathieson has been a

major supplier of many of the basic chemicals needed.

Today, Mathieson produces caustic soda, soda ash, liquid chlorine, ammonia, hypochlorite products, sodium chlorite, bicarbonate of soda, sulphuric acid, ethylene oxide, diethylene glycol and triethylene glycol to provide a wide variety of basic textile chemicals from one dependable source. Mathieson Chemical Corporation, Baltimore 3, Maryland.

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nace can turn out carbon steel more cheaply than the open hearth when both use cold metal for the furnace charge—and just as economically when hot metal is used.

One reason for the electric furnace's high efficiency is the fact that it can produce several more melts a day than the open hearth. This is why at least one Midwest steel maker can produce as much carbon steel per day in a 125-ton capacity electric furnace as the owners of a 500-ton capacity open hearth, the latter using 50% or 60% of hot metal.

• **More for Less**—Besides its high production rate, the electric furnace has another big advantage over the open hearth: Capital cost is relatively low. A four-furnace melt shop using four 150-ton oil-fired furnaces with a capacity of 300,000 tons per year, for instance, would run around \$5.5-million.

Compare this with the investment required for the modern open hearth. To be modern, an open hearth furnace must have a heat capacity of 200 or more tons and be equipped with every technical advantage. It must be directly connected to a modern blast furnace to provide it with the 60% or more of hot metal required for maximum economy. And a blast furnace requires coke-producing facilities. Such an integrated open hearth operation would cost about \$40-million.

• **Limitations**—Because of the sizable investment involved in the open hearth, the BCR-utilities committee is practical enough to realize there is scant chance that the electric furnace will completely replace modern integrated operations, especially in the large steel-consuming centers. The market they see here is limited to the need for additional steel-making capacity.

The real future for the electric furnace is in communities that lie 100 miles or more beyond present integrated steel-making plants and that use 100,000 tons or more of carbon steel per year in the form of hot rolled bars, light structural shapes, wire, hoop stock, and strip.

• **Ideal**—One reason is that such a demand is much too small for the conventional open hearth plant producing large ingots. But it can be handled nicely with the small ingots poured from the electric furnace and rolled directly into the finished product.

Another reason is the freight advantage that an electric furnace operation would have in areas that are not near the steel hub in the East. A freight advantage of 100 miles makes a big difference to a steel maker. As the population center moves westward, delivery costs go up, and the need for a more decentralized steel industry increases, too. One answer to this may

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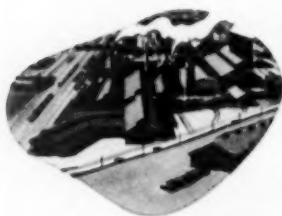
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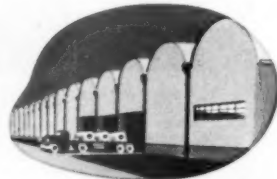
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Blast furnace division of National Steel located in Buffalo, New York.



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Unit of Great Lakes Steel Corporation. Plants at Ecorse, Michigan, and Terre Haute, Indiana. Exclusive manufacturer of world-famed Quonset buildings and Stran-Steel nailable framing.



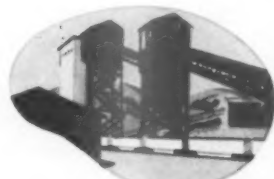
NATIONAL STEEL PRODUCTS CO.

Houston, Texas. This new warehouse is a Quonset building supplied by Stran-Steel Division. Company distributes steel products throughout the Southwest.



HANNA IRON ORE COMPANY

Cleveland, Ohio. Produces ore from extensive holdings in Great Lakes region. National Steel is also participating in the development of new Labrador-Quebec iron ore fields.

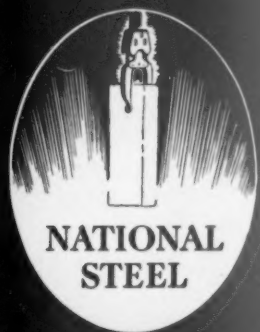


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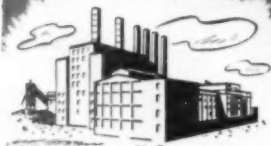
A color reproduction of this painting . . . in larger size for framing . . . will be mailed on request. —>

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In helping you to find your plant site, we first examine *your* primary needs. Usually you want *first*, sound answers to *production and distribution problems*; so we start our studies with this in mind.

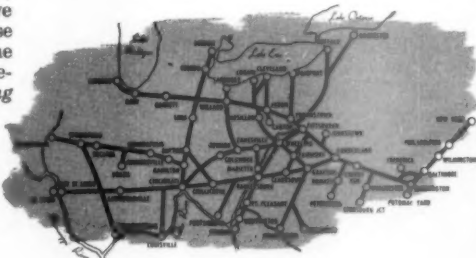
Our next move is to relate *your* needs to pertinent site potentials as we know them; and in our territory—where for years we have been an operating private enterprise—we *know* the cities and towns, and the country between. We get the up-to-the-minute facts you require *without bringing*

you into the picture. We cut your report from cloth we *know*—from everyday experience in the community.

The **BIG, NEW** plants operating profitably on sites selected this way are **EVIDENCE** we're talking *facts*! Call our nearest Industrial Development man, and let him do the rest. *Ask our man!*

The men for you to telephone are at:

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Chicago 7.	Phone WAbash	2-2211



BALTIMORE & OHIO RAILROAD

Constantly doing things — better !

be in the fast-melting, more efficient high-powered electric furnace.

• **Drawback**—Even in these areas, though, one thing puts the electric furnace at a disadvantage: the cost of electric power, the big expense item for electric furnace operation. Although power cost in itself is fairly stable, rates vary all over the lot, even among electric companies supporting the survey. The utilities, however, could conceivably alter this differential in rates to encourage growth of a promising industry that would operate around the clock seven days a week.

• **Unstable**—The very stability in the cost of electric power, though, has in fact helped the position of the electric furnace. On the other hand, the instability of the price of scrap—the basic raw material of the electric furnace—is a big obstacle in its path. Scrap prices, especially high now because of the scarcity (except, of course, for the restraint of OPS ceilings), hinge entirely on the demand. They vary from all the market will stand when the demand is high to whatever is offered when it's low. Here again, though, the use of beneficiated ores is a big boom to electric furnace researchers as a possible new source of raw material.

The high cost of raw materials is an important factor in the economics of both the open hearth and electric furnace. But while hot metal and fuel for the open hearth have also spiraled, they tend to drop less in price than scrap, when demand is low.

• **High Priority**—As long as the electric furnace is confined to scrap for its raw material, its future is strictly limited. For this reason, the problem of finding a more stable, lower-cost charging material stands high on the must list of the BCR-utility committee—and other research groups.

One BCR committee member is pushing research into direct reduction of iron ore concentrates that have been sintered with coke to remove the oxygen from the iron oxide. In trials the coke, held in close contact with the ore as it is heated, is brought to a very high temperature with fast and complete reaction.

• **Challenging**—Even if the BCR group can develop this competitive source of iron for scrap for the electric furnace, it still has one big problem to tackle: air pollution. In the open hearth, the gases and fumes to be cleaned before being liberated into the air are held mostly within the furnace flues. That makes cleaning relatively simple.

Not so the electric furnace. Here, the fumes seep out around the electrodes and the furnace doors. The job of collecting these fumes before they pass into the air is a big one that still has to be mastered.



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READERS REPORT

Upper Isn't Northern

Dear Sir:

Let me pick you up on a few points in connection with your interesting if somewhat over-optimistic piece called "Northern Michigan Hopes for Better Days" [BW—Mar. 8 '52, p104].

Never call the upper peninsula "northern" Michigan. Northern Michigan is the northern part of the lower peninsula. This is a sore point with native sons of the upper or northern peninsula, like me. It springs, I guess, from the once strong feeling of insularity, politically expressing itself for a time in a separatist movement which advocated independent statehood (Cleveland was to be the name of the new state). In this connection it would have been interesting if your article had brought out the strange story of the near border warfare which, in compromise, gave Ohio the tier of counties containing Toledo, and Michigan the upper peninsula, although geographically it fitted in with Wisconsin.

In discussing ethnic groupings, you mention Finns and French and Swedes, but omit the Cornish. Miners from Cornwall flooded the area. I was weaned on Cornish Pasties, traditional noon meal of miners, today sold on the region's highways like hotdogs; and the short, sharp Cornish "a" sound in "walk" and "talk" characterizes the speech of the U. P. native.

And you omit mention of the Marquette Iron range (the first discovered in the area) and the city of Marquette, largest in the peninsula, with the best port. And what of Sault Ste. Marie, locale of the strategic Soo locks and home of Michigan's only truly great governor, Chase S. Osborn?

The sad fact about the copper counties' (Houghton and Keweenaw) work force in relation to new mining operations is that it is too old, with a higher proportion of adult males over 40 than anywhere else in the United States.

LAWRENCE R. KLEIN

ARLINGTON, VA.

Crime, Your Business

Sir:

Sincerest thanks for your editorial "Crime Is Your Business, Too" [BW—Mar. 8 '52, p184]. . . . It is my belief that this support will greatly help the Anti-Crime Committee's program.

A reprint of this editorial has been sent to each director and member of the committee and is being used to great advantage in connection with our appeal to individual citizens and out-

standing members of the business community.

... Copies of this editorial in letters were sent to the directors of every crime commission in the country. We have since received letters from each of them expressing their appreciation and intention to distribute the editorial to others in their communities.

SPRUILLE BRADEN

CHAIRMAN
NEW YORK CITY ANTI-CRIME
COMMITTEE, INC.
NEW YORK, N. Y.

Cheap Advice

Gentlemen:

Enjoyed your article on Franz Pick and his "Black Market Yearbook" [BW—Mar.22'52,p118]. You said, among other things, that Pick advises clients on foreign currencies for a fee of \$1.75 per half hour. Now, since I have a currency problem, I figured that \$1.75 for 30 minutes was pretty cheap advice. But Mr. Pick tells me that BUSINESS WEEK's printer must have added an extra digit and an unnecessary decimal: His consulting fee is \$75 per half hour.

JOHN JORGENSEN

NEW YORK, N. Y.

• Unfortunately, it's true; our printer inadvertently cut currency expert Pick's consulting fee by nearly 98%.

Ahead of Yourself

Dear Sirs:

I thought BUSINESS WEEK did a fine job writing up Chancellor Butler's new British budget [BW—Mar.22'52,p181]. It is more important to us in the U.S. than most people realize. But didn't you date the budget five days early? Wasn't it presented to Parliament on March 11th, not March 6th, as you reported? Or does BUSINESS WEEK have its own special calendar for foreign financial news?

W. ALLISON PETERS

NEW YORK, N. Y.

• Mar. 11 is the correct date. BUSINESS WEEK's foreign editors were so engrossed in their Mar. 15 budgetary problems that they slipped up on Mr. Butler's.

Shipping Rates K.O.'d

Sirs:

We have noted with much interest an article "Ship Rates Killed" [BW—Mar.15'52,p25]. This article interprets the implications of the decision of the U.S. Supreme Court, which has been termed the most important court decision dealing with ocean freight rates in 25 years or more. . . .

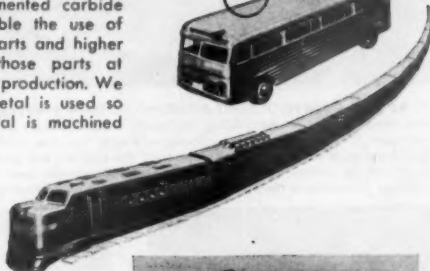
In the article, you state in the third

How did YOU get to work this morning

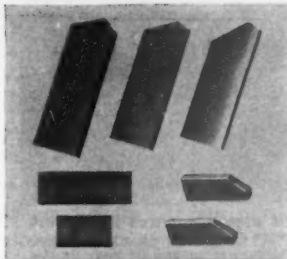
Most of us take for granted the dependable machines that keep our transportation running—machines that permit us to enjoy life in the country and still maintain regular business routine in the city.

We give even less thought to our great metal working industry, without which dependable, power-packed engines would not be possible.

The metal working industry, particularly the manufacturers of cemented carbide cutting tools, make possible the use of better metals in engine parts and higher precision machining of those parts at unbelievably high rates of production. We are proud that Wessonmetal is used so extensively wherever metal is machined by carbide cutting tools.



Wessonmetal blades—standard and special—uniform cemented carbide—only slightly less hard than a diamond—are scientifically formed in various grades to provide toughness, strength and other qualities to meet the needs of today's most difficult metal working problems.



This typical Wesson cutting tool—the Wesson "Rigidcut"—carries more blades per inch of diameter—any of which is replaceable. Combined with Wessonmetal blades it is one of today's most efficient metal working tools.



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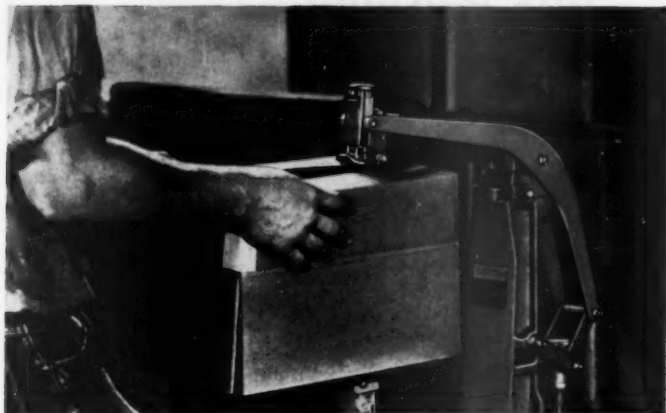
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2. HE USES A BOSTITCH HEAVY-DUTY STAPLER — equipped with a long, thin sealing blade — to top-seal his bulky shipping cartons. Also three times faster than gluing and taping.



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paragraph: "Another set of rates, about 20% higher, was established for other shippers and for nonmember ship operators such as Isbrandtsen." This is inaccurate and confusing. The dual rate system which these Conferences sought to impose on the trade as of Nov. 1, 1948 (before which time the Conference Contract Rate System had not been in effect since W. W. II) proposed to set as the so-called "contract" rates the current rates being quoted by the Conference Lines as of Nov. 1st, and as to those shippers who did not sign contracts to ship only on lines belonging to the Conference, the rates would be about 20% higher. As to steamship lines not members of the Conference, they always have been, were at that time, and naturally now are free to quote whatever rates they please.

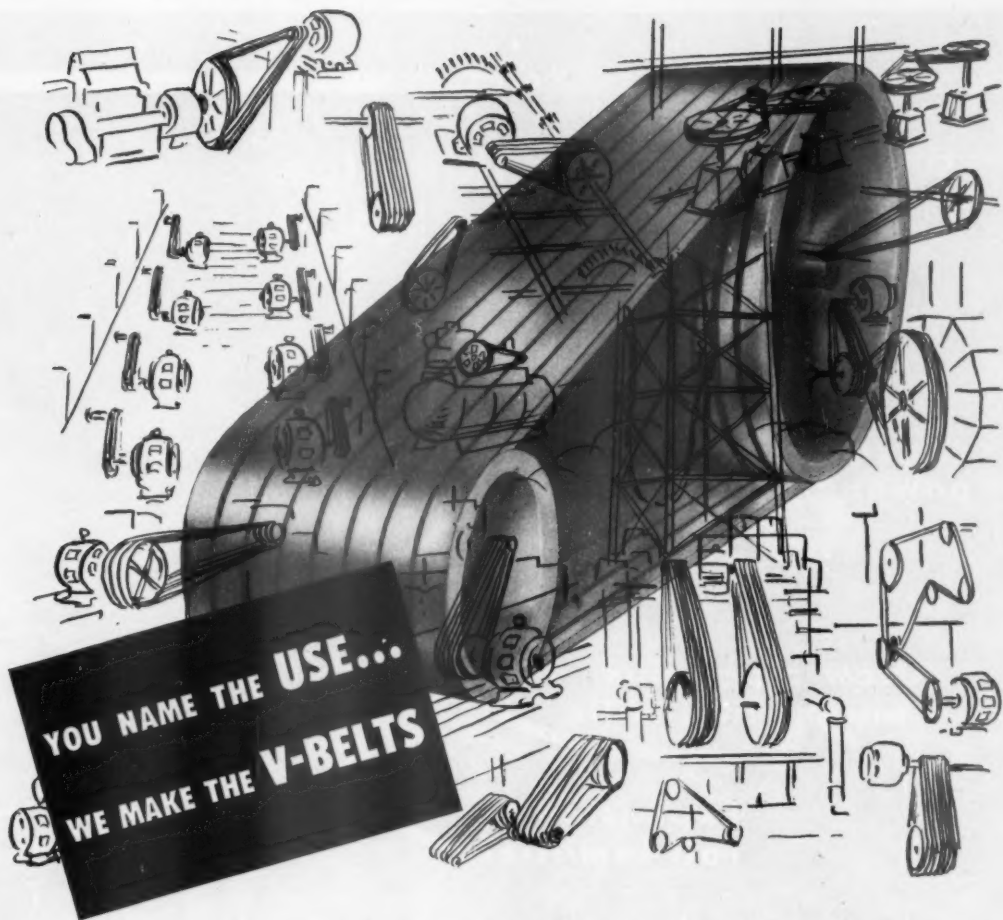
. . . In the fourth paragraph, it is stated: "The company sued for the right to charge the lower, competitive rates allowed to conference members." This statement is remarkably inaccurate. . . . The Isbrandtsen Co., Inc., an independent, has no need to consult with any Conference group or the Conference Lines as to what rates it establishes. . . . It does not even have to consult with any Governmental regulatory body as long as its rates cannot be considered as unfair or constituting an improper trade practice. . . . Our suit was to force this shipping cartel to discontinue an open violation of the shipping laws of this country—that and no more.

. . . The heart of the article and the one in which a substantial error was made is the last paragraph: "The two decisions give the Maritime Board a big job: the review of ship freight rates on two oceans." That is not so. The decision gives the Maritime Board nothing whatever to do as concerning the freight rates applying on shipments moving between U. S. North Atlantic ports and Continental Europe. The decision of the Federal District Court of N. Y., upheld by the Supreme Court, was to make permanent the injunction against these particular Steamship Conferences using in any way the Exclusive Patronage Conference Contract (Dual) Rate System. Actually, under this decision, we consider it certain that in due time this whole unlawful scheme of fixing freight rates by these "allowed" cartels will be brought to a definite end.

M. S. CRINKLEY

VICE-PRESIDENT
ISBRANDTSEN CO., INC.
NEW YORK, N. Y.

• BUSINESS WEEK may have misinterpreted the way the complicated rate situation involved Isbrandtsen, but believes its reference to future Maritime Board action stressed the need for re-orientation of basic policy.



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STEEL

What RFC's \$75-million loan is doing for Lone Star



Lone Star Steel Hitches Its Wagon to the

Toward the end of this year, Texas will finally have an integrated steel industry that is geared to its oil industry.

This month the Lone Star Steel Co. of Dallas, Tex., was granted a \$40-million certificate of necessity that would double production of pig iron at its Daingerfield (Tex.) plant. The \$40-million would supplement the company's current \$75-million expansion program, which, when completed, late this year, will boost its steel production capacity to 500,000 tons a year. Most of the steel is earmarked for the state's booming oil industry.

Washington asked the company to apply for the certificate to help relieve the nation's shortage of pig iron. Included in the \$40-million program would be a new blast furnace with an

annual capacity of 350,000 tons of pig iron, additional coke ovens, the opening of another coal mine, more ore mining and beneficiation facilities.

Negotiations are still in the paper work stage. The company is dithering over how it would finance the \$40-million; and it wants to be reasonably sure of a market for the additional pig iron during the five-year amortization period before it signs on the dotted line.

• **Two Products**—Whether or not it takes on the additional expansion, Lone Star plans to concentrate on producing the kind of pipe needed by the nearby oil fields. It has been turning out cast iron pipe for more than a year (it's the only such mill between the Mississippi and the Rockies). Its sec-

ond product will be conventional API pipe (manufactured to American Petroleum Institute specifications) for oil field use. The company will have no competitors in this field within 1,000 miles (Sheffield Steel Corp., which also uses Texas ores, makes a large-diameter pipe for gasoline use).

Lone Star's pipe will be of the welded variety, but will be "normalized" by a treating process that removes evidence of the weld. Pipe for tubing will range from 1.9 in. to 4.5 in. in outside diameter; pipe for casing will range from 4.5 in. to 16 in. in outside diameter.

• **War Baby**—The Lone Star plant has been fighting its way out of political red tape ever since it was built. It was financed by the Defense Plant Corp.

Four new
open hearths

Oil Industry

during World War II (BW-Jan. 24, 1943, p. 52). In 1942 the Lone Star Steel Co. was organized as a contracting company to build the pig iron facilities as a defense plant. It then took over the contract to operate the facilities.

The company itself was founded in 1942 by John W. Carpenter, then president of Texas Power & Light Co. It produced only coke up until 1947, when the directors named Eugene B. Germany president, and directed him to get the company into operation to produce pig iron.

Germany's interest in iron and steel production threads back to the time he served on ex-Gov. W. Lee O'Daniel's committee charged with the job of getting eastern concerns interested in the development of iron ore

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A battery case of styrene, molded in halves, each in a 5-lb. gross weight shot, won an important industrial award in 1948. This battery case was a great step forward in the size and weight of injection molding with plastics. Producer was Prolon Plastics. Prolon has since developed this job so that it is now molded in a 10-lb. shot in one piece.

Prolon Plastics, world's largest producer of injection moldings, is a division of Pro-phy-lac-tic Brush Company. Currently producing for blue-chip industries and all branches of the Armed Forces, Prolon's services include research, design, engineering, die-making, molding and assembly.

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(Advertisement)

in east Texas. Germany was one of the original directors of the company when it was set up to build the plant at Daingerfield. Today he is one of its five largest stockholders, owning more than 40,000 of Lone Star's 2,640,000 shares.

• **Modest Start**—The 1942 layout included a \$24-million blast furnace (1,200 tons a day capacity) and coke oven, plus an iron mine at Daingerfield, and a coking-coal mine in nearby Oklahoma (BW—Mar.15'47,p20). The plan then was to add \$40-million of steel-making facilities later, providing Lone Star with an integrated steel plant using local materials.

However, by the time the iron works was finished in 1944, the push for steel was over. In early 1947 the War Assets Administration put the whole property up for sale, in part or in parcel, with the rider that any buyer of the Oklahoma coal mines must supply both Daingerfield and the Sheffield Steel Corp. plant at Houston.

• **\$7-Million Song**—Lone Star Steel Co., the operating company, was the only bidder. It got the \$30-million plant for \$7-million. Since then, post-war demand for pig iron and iron products has kept the company well in the black.

The expansion that followed Korea gave Lone Star its chance to get into steel production. Early last year the Reconstruction Finance Corp. authorized a loan of \$75-million to build steel-producing facilities (BW—Jan.20 '51,p35). In the following 12 months, Lone Star let out \$41.5-million in contracts; of these, more than 20% have been completed.

• **No Clouds**—Right now Lone Star is sitting pretty. It has a 100-year ore reserve. Its coal supplies are but a few rail miles away in southern Oklahoma. Raw materials seldom will have to travel more than 250 miles before being converted into finished pipe and being placed into actual service—sometimes within sight of the plant.

When the new steel plant is completed late this year, the company will have one of the tightest-knit operations of its kind in the world. Germany estimates that the total value of the company will be in the neighborhood of \$150-million.

• **On Hand**—The company's present facilities include a blast furnace, coke ovens, iron ore mines, iron ore beneficiation plant, coal mines, cast iron pipe foundry, a railroad that serves the plant, 35,000 acres of ore land, power-plant, laboratories, warehouses, and maintenance shops.

• **Coming Up**—The \$75-million expansion program in the works will add:

• Four open hearth furnaces and related facilities for handling steel ingots.

• A rolling mill for processing ingots into skelp.

• Two steel pipe mills and related facilities required to normalize electric welded pipe.

• Expansion of railroad facilities.

• Expansion of present power-plant facilities.

• **Early Failures**—Lone Star takes its ore from the east Texas hills—the same hills that the pioneers mined for ore for plow points and flatirons, and the same hills that the Confederate government worked for ore for cannon balls. Many attempts have been made to develop profitable ore production in this part of Texas, but nearly all previous projects failed.

In the 1850s the first blast furnace was built within five miles of Lone Star's present plant. It failed. A few years later, another effort to turn the sand and clay-packed ores into iron resulted in the construction of the Tassie Belle, the Star and Crescent—both failed—and the Lone Star furnaces. Later Valencia, a Sheffield Steel subsidiary, built a blast furnace, which it operates in connection with its ore mine at Rusk.

Principal reason for the early failures was that there was no nearby plant that could produce end products that could be sold on the local market. Other reasons were the lack of good transportation and the low quality of the ore.

• **On the Bandwagon**—Lone Star thinks it will succeed where others failed because its production is geared to the nearby oil fields—most of them within 24-hour trucking distance. And the kind of steel that goes into pipes doesn't have to be high grade. Of its estimated annual production of 500,000 tons, 350,000 tons will go into oil field pipe; the rest will be gobbled up by other local industries.

The company is also banking on the proximity of its market to cut down a lot of competition from the larger companies. The new plant is located about 30 miles north of Longview, within overnight trucking distance of the oil fields.

"A short trucking will mean a tremendous saving to the oil industry," Germany says. "At present most of the oil country tubular goods move either by rail or boat to Texas. Upon arrival, the pipe is moved by truck either to storage or to the point of use. Considerable storage facilities are required, and that means still another handling of the pipe when it is picked up for delivery. In the case of Lone Star Steel, storage will be practically eliminated for the consumer. Any freight rate increase works to our advantage."

• **No Coupon Clipping**—Germany's ambition is to retire the RFC loan

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in about six years. In the meantime, he has to keep his 8,500 stockholders projected into the glowing possibilities of the future, because so far he hasn't been able to pay dividends.

Today Lone Star stock is sold over the counter for around \$8.25. In 1950 it sold at \$8.55 to stockholders (\$9.50 to the public), but Germany estimates that the actual value of the 2,640,000 shares is between \$25 and \$30 a share. That's based on a value of \$60-million on the old facilities, and \$75-million on the new. Under his present plan, Germany expects to have the plant paid for five years after production of steel pipe begins late this year. But he doesn't expect to pay his first dividends before 1957 or 1958.

How Steel Mills Cope With a Shutdown

Standby arrangements to cope with a strike were dusted off in the steel mills this week. If a strike is called, here's how the shutdown will be handled.

Forty-eight hours before the strike is expected, coke oven preparations start.

With about 10 hours left, blast furnaces are charged heavily with coke and limestone. Ore is cut back hard. Open hearths are tapped and cleaned. Bessemer converters blow their final heats. Soaking pits and mill furnaces are emptied. All are sealed.

Each operation must be scheduled so the coke, iron, or steel in process will have reached a stage where it can be safely left outside a furnace. Aside from the huge coke blank in the blast furnaces, nothing is left in the furnaces but heat.

Trickiest job is in the coke plant, where coal is baked in chambers surrounded by combustion cells. If their temperature goes below, say, 1,700 F., the refractory linings will crack. You try to keep going on a skeleton basis, making enough coke to generate gas needed to keep the ovens hot. Otherwise, you buy the gas.

In shutting down a blast furnace, all the iron and slag possible is taken out. Then the wind is shut off and the stack sealed.

Open hearths are simpler. They're charged so that they can be tapped, cleaned, and sealed before deadline. What you do then involves an educated guess. If it looks like a very short strike, you'll burn fuel to hold 2,000F. For a longer strike, you let it cool. The factors to be figured: fuel cost vs. damage to refractories and delay in getting going.

Bessemer are easy; after the last heat, they're turned nose down to keep moisture out, heat in. Metal mixers are emptied and sealed—made into thermos bottles.



C. A. DEPUE has high hopes for . . .

New Steel Plant

Midwest fabricators will get much-needed steel source in Iowa mill—if North American Steel can lick costs.

Steel users in the Chicago area sorely need every bit of iron and steel that the big mills in the region can turn out—and then some. This makes it tough on metalworking plants in the fringe areas to the west. Output of the mills around the foot of Lake Michigan naturally gravitates to nearby markets, leaving manufacturers in western Illinois, Wisconsin, and Iowa out in the cold when it comes to buying the iron and steel they need.

C. A. Depue, head of North American Steel Co., and his associates have their eyes fixed on this bare spot on the steel-making map. If possible, they mean to move into it.

• **In the Works**—This week in Camanche, Iowa, a tiny town on the outskirts of Clinton, workmen started clearing a 400-acre site for a \$66.5-million merchant iron mill. Its sponsors hope to turn the project eventually into an integrated steel operation.

Estimated cost of the plant covers two blast furnaces and 96 coke ovens, as well as site development, buildings, dockage, trackage. Depue even has a 25-in. billet mill, which he bought from the government some years ago and has



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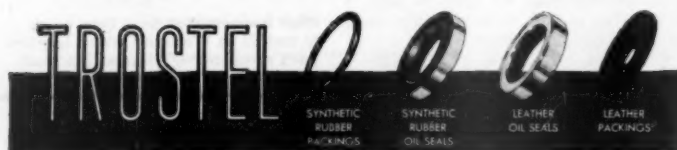
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“... There won't be any question about financing the plant...”

NEW STEEL PLANT starts on p. 69

kept in mothballs. Initial capacity of the new plant will be 750,000 tons of pig iron annually and about the same amount of coke.

The mill will get its iron ore from nearby Minnesota. The plan is to bring it by rail to Minneapolis-St. Paul, some 275 miles north of Clinton, and ship it by Mississippi River barges to the mill. Coal will move up the river from southern Illinois and Kentucky.

• **No Problem**—“There won't be any question about financing the plant,” Depue says. In the beginning, North American got a government certificate of necessity permitting fast amortization of 85% of the estimated cost. At least half of the needed funds will come from private sale of capital stock; a bond issue will provide the rest. “We're working on the bond matter now, hope to be well along within a month,” Depue estimates.

Aside from members of Depue's family, identity of North American backers is being kept under the hat. Depue already has more than one finger in the steel pie. In addition to his North American post, he is president of the Central Steel Tube Co., of Clinton, which turns out 4,500 tons of electric weld steel tubing a year.

• **Yes, But...**—Steel users in the proposed mill's market territory, to say nothing of competitors, aren't nearly so optimistic about the project as Depue is.

They admit there is a good market just 50 miles away—in places like Davenport, Moline, and Rock Island, where there are several big farm implement plants. But they fear haulage costs of iron ore and coal will be too high for North American to compete successfully with the Chicago mills. What's more, they say, the steel supply-demand picture seems about ready to shift from a sellers' to a buyers' market. Even the Chicago mills may soon be looking around for orders. When that happens, it's going to be tough for a high-cost producer to sell. One big steel buyer said: “We're afraid the Chicago producers can lick the pants off North American.”

But Depue is not daunted by these grim views. He feels that the geography is in North American's favor. And he's not worried about licking the cost problem.

The next few months will tell whether investors—the people who will be asked to float the bond issue and buy stock—agree with him.

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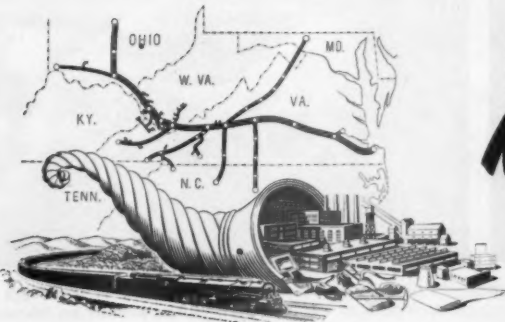
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LAND OF PLENTY

CONSTRUCTION



PRECASTING A stainless steel corner panel gets its perlite concrete backing on the assembly line and...



... masons settle concrete with vibrators (foreground) and smooth it with trowels. When the stuff hardens, panel goes to ...



SPRAYING On Alcoa's project, aluminum outer panels are installed, then aluminum lath (above) ...



... takes the perlite concrete that's sprayed on to a depth of 4 in. Masons go over the wall five times to build up this layer.



... building site by truck and is hoisted to the job. It took 17,000 pieces for the Gateway Center project, but ...



... work goes fast as crews ease precast panels into place. At the Gateway Center group, workers enclosed six floors a week.

Skyscrapers Clad in Metal Coats

In Pittsburgh, four of the world's flashiest office buildings are in the final stages of construction. Three are clad in stainless steel, one is clad in aluminum.

Their shiny surface isn't what the builders are after, primarily. It's the weight and space saving and the ease of maintenance made possible by metal skins backed up by perlite concrete (BW-Mar.15'52,p104).

Two 20-story buildings and one 24-story building in Equitable Life Assurance Co.'s Gateway Center group are clad in stainless steel. The 30-story headquarters of the Aluminum Co. of America is surfaced with aluminum.

• **Why Use Metal?**—Of course, it's good business for Alcoa to use as much as possible of its own product in its home office. The Alcoa Building is a readymade showcase. But the reasons

for specifying metal and perlite exterior walls go deeper than that. With either stainless steel or aluminum surface, the technique provides:

- More interior space that can be rented than in a masonry building of the same outside dimensions. Walls may be as little as $4\frac{1}{2}$ in. thick, compared with 10 in. to 13 in. for masonry construction.

- Less weight to be supported by the building's skeleton and foundations. Equitable figures its stainless steel and perlite concrete walls are one-third lighter than brick, save 10% on structural steel tonnage. Alcoa's walls are even lighter, with a thinner perlite concrete backing for the 12-gauge aluminum skin.

- Faster and maybe cheaper construction. Equitable's steel-clad walls are factory-assembled; both Equitable's

and Alcoa's processes save a lot of expensive masonry.

- Easier maintenance (BW-Jan. 19'52,p71).

That's how the builders of Pittsburgh's new skyscrapers figure it, anyhow. The four buildings together will serve as a laboratory to test the virtues of the metal and perlite concrete combination.

I. Steel on Perlite

Precasting of the perlite concrete backing for Equitable's steel shell is just about finished. Pouring started last September, was interrupted for about a month by weather. At the peak of the job, three shifts were working around the clock, with about 80 men per shift.

Plans called for 17,000 concrete-backed panels, standardized for mass

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STEAM REMOVES protective plastic coating from a stainless steel panel installed at Gateway Center. The plastic guards the steel from dirt and scratches during casting.

production in six basic shapes for most of the building (the penthouse required an extra 18 shapes). The smallest of the six panels is about 15 sq. ft., weighs half a ton; the largest is 100 sq. ft. and weighs three tons.

(The penthouse shapes vary more widely in weight, from 270 lb. to 9,900 lb.)

• **The Process**—The stainless steel panels, 17% chrome and only 0.031 in. thick, were backed with perlite concrete at the McKees Rocks (Pa.) plant of the Cemenstone Co., six miles from the building site.

The steel panels were placed in a form. First, they received a thin "breather" layer of perlite concrete; this layer is to take care of condensed vapor, letting it escape at the bottom of the panel. On top of this layer, a cage of steel reinforcing rods was built. The rods were welded in place. Then overhead cranes paraded 1-yd. buckets of perlite concrete to the forms and poured a 5½-in. layer into the cages of reinforcing rods. Masons went to work with vibrators and trowels to finish the surface. When the stuff hardened, the panel was done.

• **Perlite's Role**—With a mixture of cement and perlite, you can get a much lighter back-up panel than with conventional concrete. The perlite is a lightweight aggregate that's popped like

popcorn in furnaces; it takes the place of sand and gravel. The cement and perlite mixture weighs about 100 lb. per cu. ft., whereas conventional concrete weighs in at about 150 lb. per cu. ft.

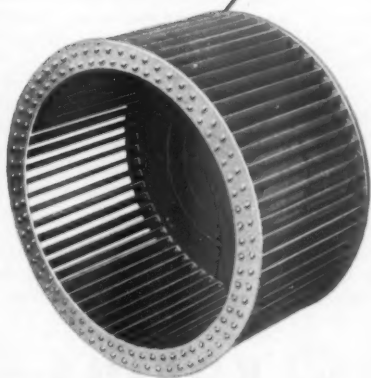
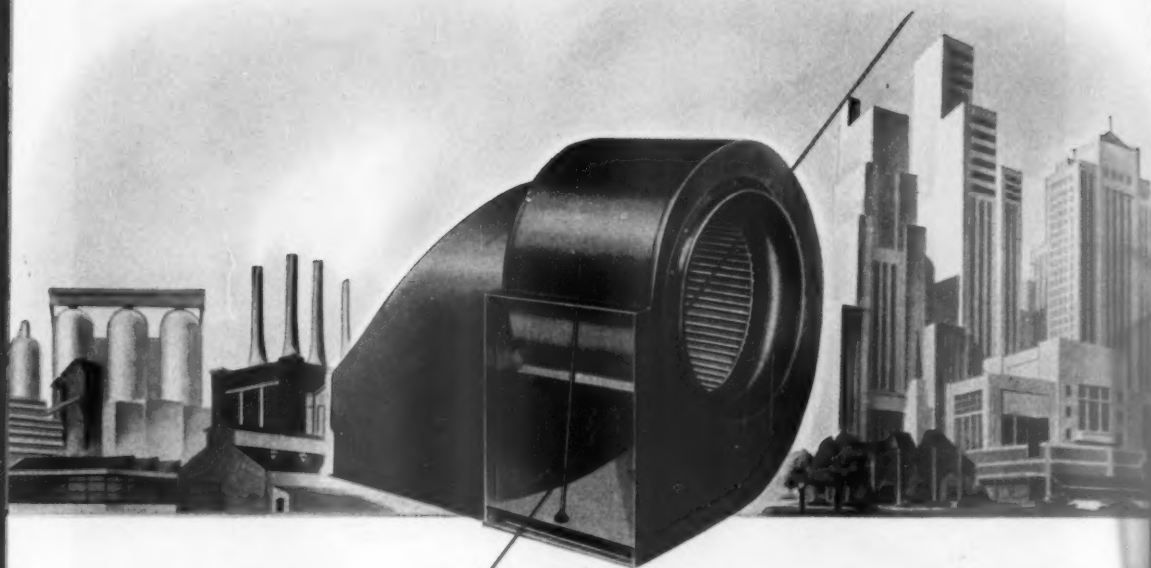
• **Fast Assembly**—The factory-assembled panels were trucked to the building site as they were needed. Not one of the 17,000 panels had to be sent back to the McKees Rock plant to be recast. The installation went ahead at a pace of about six stories of wall each week, with more than 250 panels to each story.

As an example of the time and labor savings, the big corner angles (first picture, page 72) each replace 165 sq. ft. of face brick or stone, plus about 3,000 common bricks behind the face. You don't need scaffolding to put the pre-cast panel in place, and you can cast the concrete backing with labor that costs about half as much as brick-layer labor.

Yet the 5½-in. panel is as strong as a 13-in. masonry wall and, thanks to the peculiar properties of the perlite concrete, has a higher insulating value. That pays off, too, in both capital and operating costs of the heating and air-conditioning plant.

The panels also bypass one problem of brick construction. Since each panel is independently bolted and welded to

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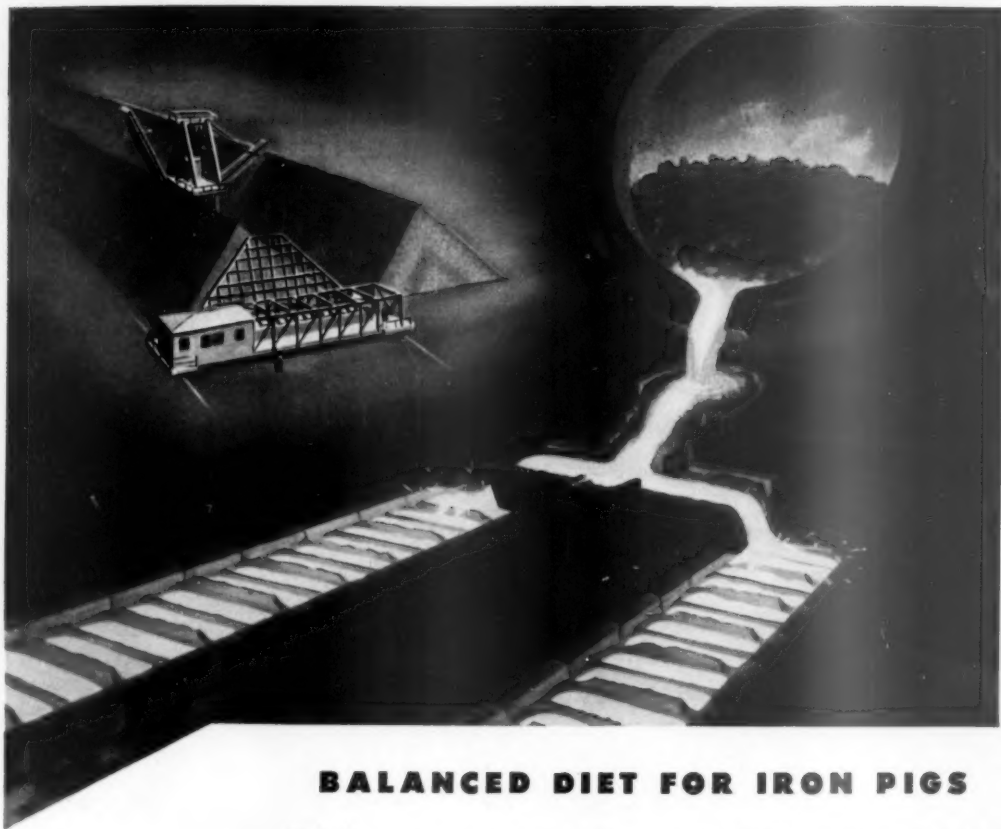
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"... the Alcoa tower is the lightest office building of its size ever built, engineers say..."

CONSTRUCTION starts on p. 72

the building frame, lower panels don't carry the weight of upper panels. Wall thickness can be uniform for the full height of the building.

II. Aluminum on Perlite

On the Alcoa job, the facing is a separate sheet of aluminum, $\frac{1}{4}$ in. thick, with a backing that's sprayed in place. The aluminum panels are one story high (12 ft.) and 6 ft. wide, with the window space already cut out. Story-high panels only 27 in. wide cover the exterior building columns.

Behind the panels is a 14-in. air space for insulation and vapor control. Then comes an expanded aluminum lath that's attached to the bracing of the outer skin. Finally, there's a couple of inches of conventional steel reinforcing rods, tack-welded into about 4-in. squares.

• **Spray the Concrete**—With the reinforcing rods in place, masons begin building up the backing of perlite concrete.

The mixture is batched on each floor and delivered by wheelbarrow to the hopper of a blower, which sprays the stuff on the wall. Using 12 lb. to 20 lb. of air pressure, two men can use up a hopperful (about 8 cu. ft.) of concrete in about three minutes. They go over a wall about five times to build up a 4-in. layer; if they blew it all on at once, the soggy mixture would collapse on the floor.

Two men with one blower, plus maybe four men to make up the batches, can completely enclose a floor in about five days. The masons use a rolling scaffold. The lower man works the bottom half of the wall while the other keeps the hose free; when the concrete reaches a stipulated height, the men change places.

• **Lightweight Giant**—The weight-saving features of aluminum and perlite combine to make the Alcoa tower the lightest office building of its size ever built, according to engineers. Its 30 floors contain 310,000 sq. ft. of rentable space above the first floor, yet the building needed only 6,500 tons of structural steel.

In comparison, the 38-story Gulf Building nearby, with less (304,000 sq. ft.) rentable floor area, required 12,700 tons of steel members, and the still older Oliver Building, 24 stories high with 317,000 sq. ft. of rentable space, needed 10,000 tons.



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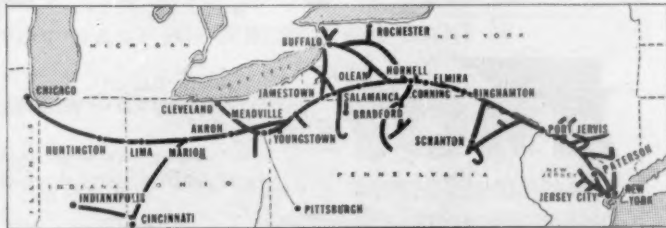
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Rotating Stainless Steel Freezing Drum
Stainless Steel Cutter
and Collector Blade
Sanitary Ice Chute
Baked Enamel Hammerhead Gray Jacket
Underwriters' Laboratories,
Sanitary Codes approval
Only 24" in diameter and 32" tall
*Rated at 302 lbs. of ice per day
at 73° room temperature,
65° water temperature.
†Continuous Operation
Price and specifications
subject to change without notice



MODEL DER-2 makes clear curved
fragments of ice purer than the water itself.

\$599⁵⁰

F.O.B. YORK, PA.

Low-priced for America's thousands of users of small ice, a new, sensational York-FlakIce Automatic Ice Maker is now on display in your York Dealer's showroom. It is designed to cut your ice costs, make better ice and pay for itself quickly . . . to save days of time and miles of steps . . . to eliminate all wasteful losses.

presents a history-making ice maker

•MAKES UP TO

300 lbs.
OF ICE EVERY DAY

This new, unique automatic ice maker produces all the ice you need, yet requires so little space you can install it right at the point of use . . . at soda fountains . . . alongside or atop food display bins . . . in every hospital utility room . . . in restaurant pantry . . . in farm building. Wherever there are water and electricity, make the simple connections, plug it in, and you can have this better ice . . . day or night, on your premises.

For wherever ice is needed...

LOW OPERATING COST

ONLY **15 kwh**
PER DAY

Operating costs are more than returned in savings . . . for this remarkable ice maker uses only 15 kilowatt hours of electricity in 24 hours operation. If you want plenty of clean, clear ice in convenient, ready-to-use, quick cooling form, install York's new automatic ice maker... For complete details see your nearby York Distributor. Or write to York Corporation, York, Penna.

Low cost ice for every business

CLEAR, CLEAN ICE WHEN YOU WANT IT—WHERE YOU WANT IT



Another Big Advance from

DEALERS ATTENTION—A limited number of York
Franchises are now available in select areas.

YORK

**REFRIGERATION and
AIR CONDITIONING**

Mr. Manufacturer! if you make

Appliances
Heating
Equipment
Air Conditioning
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Cabinets
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Automotive
Products
Furniture
Lighting
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Equipment
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or any
other
product

using COLD or HOT
ROLLED or GALVANIZED
STEEL SHEETS . . . then
you should know about



Leafcote is our own special formula of non-critical materials—superior to galvanized and other steel sheet coatings. Mid-America degreases, pickles and phosphatizes your steel or ours—after which it's heated and Leafcote is bonded and baked on for toughness and lasting adhesion. Leafcote can be used as a prime coating or as a finish and it forms and draws easily with no peeling or cracking. A leading laboratory reports that it's superior for resisting heat and corrosion*. Write for details—no obligation!

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Steel Warehouse, Inc.
1000 West 50th
Chicago 9, Ill.

New York Pier Built Far From Harbor

Three sections are assembled in old clay pit, will be floated into position, then aligned and sunk.

Sometime next summer a new 750-ft. pier will go sailing down the Hudson River—down to the sea and ships. Tugboats will tow it in three sections to 15th Street and North River, Manhattan, and workmen will sink the sections at a prepared site.

It isn't often that a steamship pier floats away like that. But then, it's not often that a pier is built 35 miles from where it's going to be used. The best-known precedent for this trick was the "float and sink" breakwaters for artificial harbors on the Normandy invasion coast in World War II.

• **Pier 57**—The new pier was designed for New York City by the firm of Madigan-Hyland to replace a pier destroyed by fire in 1947. Emil H. Praeger of Madigan-Hyland is a veteran of the Navy Civil Engineer Corps, which helped work out the wartime project.

Merritt-Chapman & Scott and Corbetta Construction Co. won the construction contract at a low bid of \$5.7-million. They leased an old clay pit at Grassy Point, 35 miles up-river from New York, as the building site, to avoid tying up drydock space.

The pit, 2,100 ft. long and 650 ft. wide, was filled with water from the Hudson River, which is only 20 or 30 ft. away. So the first job was to pump out the water. That took less than two weeks. Then the floor of the pit was leveled, and access roads were built.

• **Three Sections**—On concrete work bases, the pier pontoons are being built in three sections. The two largest sections are 360 ft. long, 127 ft. wide at the base, and 34 ft. high. They'll weigh 27,000 tons each. These sections will make up the main length of the pier, with the third and smaller section broadside to the others at the shore end.

Reinforcing steel is prefabricated on the site, and assembly is speeded by traveling cranes. Ready-mix trucks deliver concrete from a batching plant also at the site.

• **Launching**—When the sections of pier are finished, the Hudson River will be allowed to pour into the pit. The sections will then float in 42 ft. of water. The dike holding out the river will be dredged away, and tugboats will take the pier on its one-way voyage.



Just One Thing on Top of Another

The A. O. Smith Corp., Milwaukee, fabricates steel, not layer cakes. But it found the layer cake principle handy when it had to expand its space, already squeezed in by homes and businesses.

Smith needed more room for research

and engineering. But where to put it? The answer: a 38-ft. by 90-ft. one-story building perched on a platform 32 ft. above its storage yards and low buildings. A flying corridor links the new space to the third floor of the old building (extreme right).



2,500,000 HOMETOWN FAMILIES

Believe
IN **THE American**
MAGAZINE



*The Family Service magazine
for Hometown America*

That is a lot of families. And it is a lot of believing. Belief, you know, is something you can't buy or sell. It is something you have, not in your purse, but in your heart.

These families believe in The American Magazine because it believes in them—in the dignity and importance of the individual human being—in the sanctity of family life. It is this basic belief that has made America great. It is lack of it that opens the door to despotism.

Readers have a special faith in The American Magazine. They thrive on its special kind of Family Service. It is their special mentor on how to live, what to buy, where to go—their most trusted magazine.

So it is a good place to display your brand—this crossroads where more than 2½ million Hometown American families, 2% bigger, 9% younger, with incomes 38% higher than average will see it, and believe in it—The American Magazine.



REGIONS



WINTER WARRIORS send snow—and profits for resorts—flying skyward this winter as they plunge down snow-packed slopes in New



CHAIR LIFTS, tows, and every other kind of uphill conveyance were put into service to handle record ski crowds. At some resorts, skiers waited an hour for their turn.

FOR NEW ENGLAND:

There's No

Operators of New England's ski resorts aren't afraid of an early spring this year—and with good reason. Already this year, most New England ski developments have towed more skiers up the snow-covered slopes and grossed more money than in any other year in their history.

There is somewhat less satisfaction in the resorts' sister industries—the makers and sellers of ski equipment. Not much of the boom has percolated back to them.

• **Windfall**—There are just two reasons for the unprecedented rush of skiers to the hills: snow, and more snow. It came just in the nick of time for many resorts that are still recuperating from three winters of sparse snowfalls and long thaws. Some of them couldn't have survived another disappointing winter.

Their worries ended when thick blankets of powder snow fell just in



England's ski areas. Ideal snow conditions brought them to the trails in droves, to prove...

Business Like Snow Business

time for the Christmas holidays. It settled to a solid base during January thaws, then built up to near-record depths during February, when falls averaged two a week. By Washington's Birthday weekend, most resorts in Vermont, New Hampshire, and western Massachusetts had just about perfect conditions—up to 50 in. of base and 4 in. or 5 in. of powder surface.

• **Over the Hill**—Many resorts still don't know for sure just how good a year it will be. Unless nature does an about-face, the season is hardly more than two-thirds over in most areas.

But even if the worst happens from now on—an unexpectedly long thaw or torrential rains—operators can lock up the till with a sigh of relief. A run-down on how some typical resorts fared shows why.

Big Bromley in Manchester, Vt., broke all records this year. Owner Fred Pabst, Jr., of the famous Milwaukee

beer clan, said business this winter topped Big Bromley's best year (1947-1948) by at least 30%.

The town got its share of the take, too: The bank estimates that the mob of skiers who descended on Manchester just over the Christmas holidays dropped more than \$234,000 cash into the community.

Even though business could hardly have been better at Bromley, Pabst doesn't think it will be enough to make up for the long lean years. "In fact," he says, "if it weren't for my beer stock, I'd be in a serious fix."

Mt. Mansfield, near Stowe, Vt., one of the most remote, yet one of the most popular, ski developments in New England, is about 100 miles north of Big Bromley.

This year long lines of skiers queued up to ride on Mt. Mansfield's two ski lifts and several rope tows that total more than 13,000 ft. of uphill line: The

champion
1 1/2 yard
excavator



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Full tractor mobility...fast
operating speed...no tail swing
...the Hystaway can get in to
the job and work where no
other shovel can operate—first
as a bulldozer, then as a shovel.

Depending on job requirements, the Hystaway can be used as a BACKHOE, SHOVEL, DRAGLINE, CLAM-SHELL OR CRANE. Mounting on tractor can be done in an hour (2 men); removed in 1/2 hour after initial installation...Full production bulldozing or normal tractor operations can then be accomplished.

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Over seven-million pressure vessels have been designed and manufactured by this progressive company. Here you will find a quality-minded organization, modern factory equipment and the most advanced production techniques. When you specify Scaife products, you assure the uniformity, dependability and high quality of your pressure vessels.



SKI TOGS sold like hotcakes in resort shops, but city stores got little benefit.

chair lift, which makes up more than half this length, is the longest and highest in the East. Best known of Mt. Mansfield's downhill trails, Nosedive, is strictly for experts.

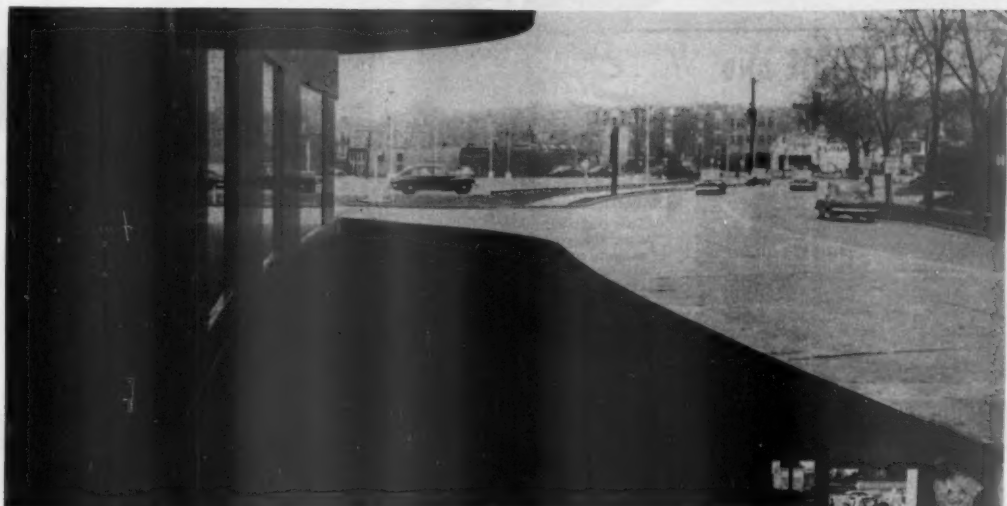
Sepp Ruschp, Swiss-born ski instructor and manager of the resort for Mt. Mansfield Co., Inc., says gross receipts so far this year are 65% higher than at the same time last year. This increase doesn't break any records, though. "It just brings us back to normal," says Ruschp. But compared with last year and the year before, it looks pretty good.

It looks good, too, to the innkeepers and farmers in the Stowe area who offer lodging to skiers. Many weekends this year skiers had to look as far away as Montpelier, 35 miles away, for bed and board. Most Stowe innkeepers happily report a 50% to 60% stepup in their gross revenues this year over last year.

Cranmore Skimobiles, Inc., in North Conway, N. H., one of three big developments in the eastern slopes region of the White Mountains, tells the same story. Cranmore, developed by the late Harvey Gibson, New York banker, will operate in the black this year for the first time since it opened—back in 1938. Just last year it lost \$39,000.

Gibson figured the Skimobile, a train of one-passenger buggies towed up a wooden ramp by a cable, would benefit North Conway, his birthplace, by bringing tourists there. He was right. Last year the lift carried 400,000 passengers. So far this year, it has carried about 100,000 more than that.

Cannon Mt. Aerial Passenger Tramway, a state-owned development in the Franconia Notch (N. H.) State Reservation, is just as proud of its record this winter. Gross revenues spiraled to \$30,000 from \$19,348 in 1951. Up to the first of March, passenger count on the



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All over the nation modern building design now includes the use of Colorundum in colored concrete floors, sidewalks, roof decks, industrial and other walkways and driveways. Colorundum is used widely in exteriors or interiors... as a wear-resistant and colorful concrete topping of long life... at practically the average cost of ordinary concrete. Decorative color combinations are often employed of red, maroon, brown, green, dark green, french grey, black. Colorundum is a dry powder ready for use, composed of coloring mediums, fused aggregates, water-repellent and hardening elements. Colorundum is dusted on and floated and trowelled into the fresh concrete topping. The non-slip, non-metallic surface makes it an ideal flooring on new concrete or when replacing old concrete floors or sidewalks.

trowelled into the fresh
concrete topping

Colorundum central fire station floor



Colorundum power plant floor



Colorundum industrial floor

HORN

A. C. HORN COMPANY, Inc. est. 1897

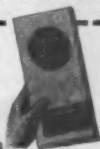
Manufacturers of materials for building maintenance and construction
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A. C. HORN COMPANY, INC.,
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96-page Construction
Data Handbook



HWS

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GRAVITY & POWER
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HANDIDRIVE Belt and Live ROLLER Conveyor UNITS

These standardized units can be used as extensions to present conveyors, as individual conveyor units, or to build a complete flow system of belt, line roller, and gravity conveyors. The Handidrive "package" consists of drive and takeup units, end roller assemblies, intermediate framework, supports and hangar — everything needed to make complete conveyors. Flexible and adaptable to many needs.

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General Offices: North St. Paul, Minnesota
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Save Time Loading — UNLOADING with the EXTENDOVEYOR

This compact, mobile, easily maneuverable power-belt conveyor unit extends to 46' in either direction and retracts to 9' 10". Reaches into cars, trucks, trailers. Handles boxes, bags, bundles, cartons, crates, cases weighing up to 150 lbs. Available in two models — 1 way stretch and 2 way stretch — and 4 sizes. Write for Extendoveyor Bulletin — address Dept. BW-32.



Write for Bulletin
63-B, address
Dept. BW-32



"... This business is as
fickle as the weather..."

SNOW BUSINESS starts on p. 82

Tramway was 25,098; a year ago the total was only 14,722.

Roger Peabody, manager of the development, is pretty sure that skiing at Cannon will continue well into April. In that case, this year may very well pass the 1939-1940 record year of 55,189 passengers, and the 1947-1948 record income of \$56,757.

• **Left Behind**—All in all, this is a pretty good showing for the ski industry. But for many reasons, allied businesses did not share in the bonanza.

Retailers of ski clothes and equipment, for one, were caught way off base when the heavy snows came in February. Stores in New York and Boston mistook the January thaw as indicating another poor season. So they held their big midwinter sales of ski togs in January and had pretty well cleared their shelves when the big snows—and the big demand—came along.

The department stores have just about written off their ski departments as just a service to shoppers—not a money maker—anyway. One buyer puts it this way: "The business is as fickle as the weather, and we can't throw ourselves into it without any assurance that the promotion will pay off. We might find ourselves trying to sell something for which there can't possibly be any demand."

Some specialty ski shops, though, did a booming business this year in one line: imported ski boots. The reasons: American skiers are becoming more proficient and therefore more particular about their equipment; prices of imported ski boots are coming down.

• **Catching Up**—Manufacturers are in about the same boat as the retailers. Most of them say business hasn't picked up much from its sodden state last year. They blame this on the fact that dealers have been unloading inventories that they built up in the past three years.

The Boston & Maine R.R., which services most of the New England ski areas, also trailed the resorts, in the long run. True, Boston & Maine's snow trains, which have carried 7,504 skiers this year, are doing a tremendous business compared with the last three or four seasons. But this winter's 142% gain in ski passengers over last year doesn't anywhere near match the record year of 1936, when 24,240 persons were carried on weekend snow excursions. The main reason for the drop-off is obvious: More people are driving their own cars, mainly because state governments are keeping highways clear of snow in order to encourage ski traffic.

Touch...and go!

Slip an envelope under the guide roller of this electric MailOpener, take it out—and it's open, with content intact. The merest touch of the guarded cutting shaft trims a hairline off the edge in an instant... whether the envelope is large or small, thick or thin, light tissue or heavy kraft!

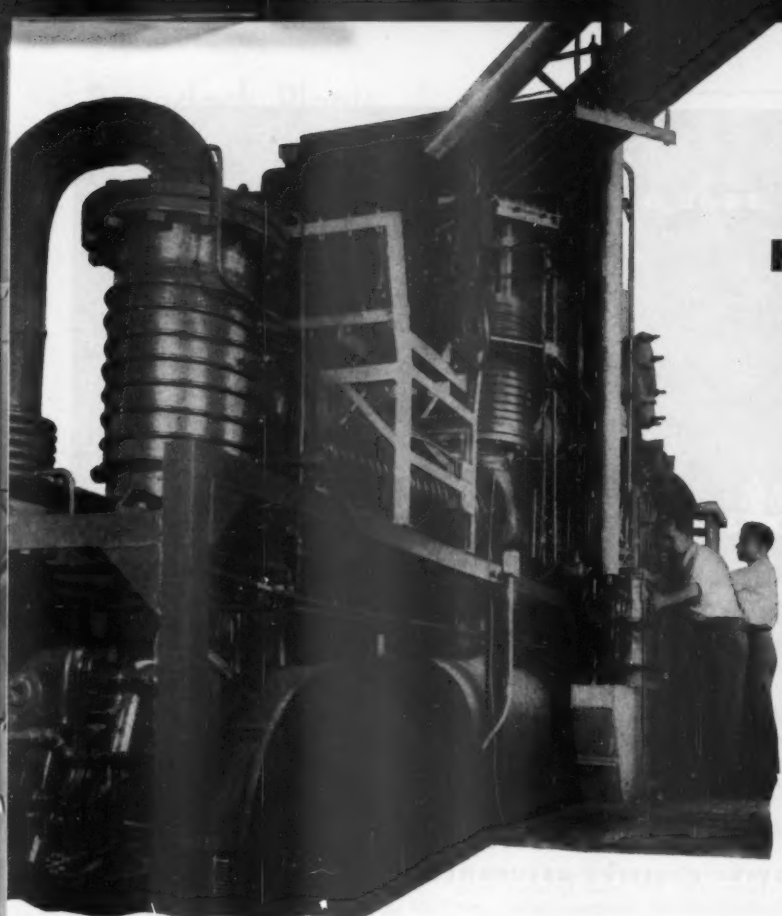
The Model LE MailOpener is a great convenience in any office for mixed mail... saves time, effort and temper... helps get your business day off to a good start! Made by Pitney-Bowes to precision postage meter standards... Ask the nearest PB office to show you the full line of hand and electric MailOpeners—or write for folder...

PITNEY-BOWES, INC., 1477 Pacific St., Stamford, Conn.
...Originators of the postage meter, 93 offices in U.S. & Canada.



PITNEY-BOWES
MAILOPENER





High vacuum develops muscles for "moly"

Pure molybdenum is sensitive to oxygen at the temperature it takes to melt it... and "moly" with oxygen is not much use. Jet engines, rockets, and other equipment need the pure metal because it stands up under heat that melts the strongest steels, but if there's oxygen in it the advantage vanishes.

High vacuum solves the problem. Climax Molybdenum Company of Detroit, Michigan, hydraulically compresses pure molybdenum powder and sometimes molybdenum chips with a little carbon. This mass is sintered into a crude stick which serves as a consumable electrode in an arc. The molten metal is caught in a pool which serves as the other electrode while it builds up into a half-ton ingot of malleable, ductile

molybdenum.

The molybdenum turns out malleable and ductile because *high vacuum* gets rid of the injurious oxygen.

Why, you may ask, don't they just use an inert gas? Bear in mind that at the high vacuum under which these operations are carried out (20 microns Hg) oxygen content is equivalent to about 0.0026% at atmospheric pressure. Inert gas pure enough and in sufficient quantity to dilute atmospheric oxygen to this level would be staggering in cost. A DPi oil ejector pump, uniquely economical to operate, creates the vacuum in the sizable space needed for the whole series of continuous operations and gets rid of the gases evolved.

In supplying equipment for high vacuum metallurgy, DPi pools its

own diversified experience in high vacuum technology with the experience of leading manufacturers of metallurgical furnaces.

In many other fields, too, where high vacuum processing has earned a useful role, DPi stands ready to help you with the vital details that add up to efficient, profitable production. Write to *Distillation Products Industries*, Vacuum Equipment Department, 739 Ridge Road West, Rochester 3, N. Y. (Division of Eastman Kodak Company).



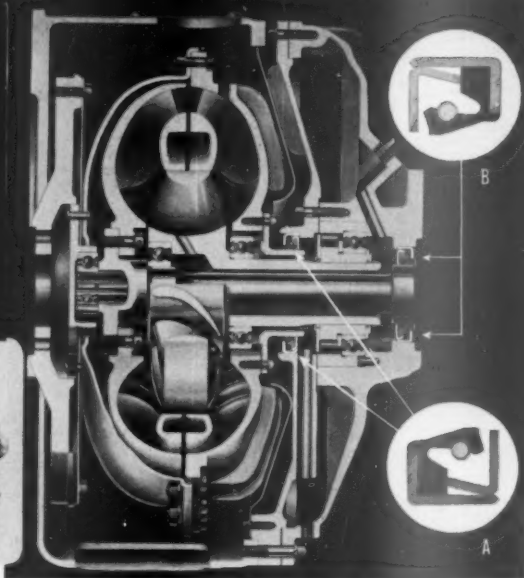
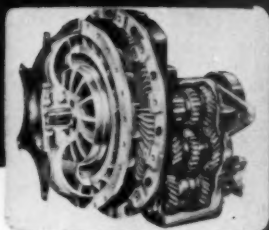
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Today, you'll find Fuller torque converters in milk delivery trucks, fork-lift trucks, tow trucks, hoists, gasoline locomotives and in other applications where fluid transmission of power and positive assurance of dependability are absolute necessities. The 50-year-old Fuller Manufacturing Company has chosen C/R Sirvene "Perfect" oil seals to insure this vital dependability.

The illustrations show how these custom-designed C/R shaft-type seals provide positive bearing protection for the Fuller torque converter used in the two-speed forward and one-speed reverse transmission of International LB-140 milk deliv-

ery truck. A special C/R Sirvene seal at location "A" holds the oil within the circuit under pressures of from 10 to 12 pounds p.s.i. At location "B" a similar design of seal insures against leakage from the fluid coupling.

Solving tough or unusual sealing problems is C/R's specialty. That's why more automobiles, more agricultural equipment and industrial machines are relying on C/R seals than any other sealing device.

P.S. For immediate delivery, C/R "Perfect" oil seals are stocked in over 1800 sizes covering 15 different types.

CHICAGO RAWHIDE MANUFACTURING CO.

1231 Elston Avenue OIL SEAL DIVISION Chicago 22, Illinois

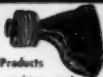


The cooperative research and engineering services which C/R has provided in producing special C/R oil seals (both synthetic rubber and leather) for leading manufacturers are available to you. We will be pleased to send you any information you wish. Brochure on request.

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Cleveland • Detroit • Pawtucket
Minneapolis • Kansas City • Houston
Los Angeles • San Francisco

Boondock Plants

Industrial construction is dispersing more and more away from larger cities and their metropolitan areas.

Industry is taking to the tall grass—has been ever since World War II.

• **Study of Awards**—Dispersal of the bigger plants into the bulrush areas is vividly pointed up by a recent survey of 446 industrial construction awards with a total value of nearly \$3.2-billion reported by Engineering News-Record, a McGraw-Hill publication.

The survey, compiled by a government agency, covers the 18 months ended Dec. 31, 1951, and is limited to new plants or additions with an estimated cost of \$1-million or more. Here's the breakdown:

- Cities with a population of more than 200,000 accounted for only 16% of the total.

- Metropolitan areas of these biggest cities drew another 29%. Don't forget that some metropolitan areas include tremendous acreage, covering miles of virtually open country. Thus the Pittsburgh area takes in four counties, Youngstown has two counties in Ohio and one in Pennsylvania. Some single-county areas also spread far from home base.

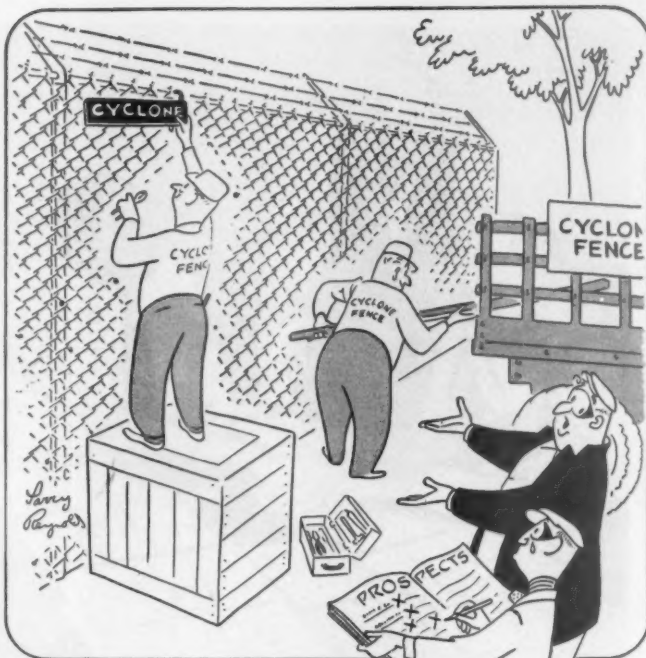
- Cities of 100,000 to 200,000 drew a meager 7%. Six other projects, with a total value of \$7-million, were in cities of this size, but which fall within the metropolitan areas of the bigger cities.

- All the rest, 48%, were located variously in open country, towns, and cities under 100,000.

On a basis of costs, the biggest cities made an even poorer showing than on total projects. Their 16% of projects accounts for only 9% of money to be spent. Metropolitan areas of the big cities reversed this, showing the largest average cost per plant. But a single \$300-million job helped weight this figure.

- **Earlier Survey**—That the decentralization trend got going well before the period covered by this survey is shown by an earlier, similar job done by the Territorial Information Dept. of a group of Chicago utility companies. This study dealt with construction awards from \$100,000 up, and covered a period from July 1, 1945, to June 30, 1948. It included 2,392 new plants and additions.

The study found that 1,308 of the projects—nearly 55%—were in and around places of less than 100,000. Only 1,084, a bit over 45%, went to cities of 100,000 and up.



"Cyclone Fence goin' up!

Dis sure disrupts our schedule!"

● When Cyclone Fence goes up, burglars' hopes go down. For this rugged fence makes any plant "off limits" for would-be intruders.

Cyclone Chain Link Fence protects property and equipment effectively. It also provides complete "entrance and exit control" over employees and visitors. But there's another reason for Cyclone's consistent popularity with plant management: it's the way every

Cyclone Fence stays taut and trim, year after year.

Our free book describes Cyclone's many special features and types of fence. Send the coupon and a copy of "Your Fence" will be mailed to you.

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WAUKEGAN, ILLINOIS • SALES OFFICES COAST TO COAST
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FREE BOOK ON FENCE

Our big, 32-page book is filled with photographs, drawings and graphic descriptions of 14 different styles of fence for industrial and residential protection. Fence specifications are set forth. Details of fence construction are given. Gates, window guards and other property safeguards are described. Whether you're interested in a few feet of fence or miles of it, you'll find this book worth your while. Send for your copy. It's free.



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Please mail me, without charge or obligation, a copy of "Your Fence."

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Address.....

City.....Zone...State.....



UNITED STATES STEEL



BRINGING NEW PLANTS to Alameda County is the goal of video program being mapped here by (left to right) R. W. Koch, R. H. Ryder, and M. G. Read. They're . . .

Putting Oakland on TV

Cross-the-bay city, tired of being San Francisco's little brother, is adding television plugs to its drive to lure industry into Alameda County.

Consider the sad case of Oakland, Calif. No matter how much it has grown, and built, and beaten its chest, an inferiority complex has still remained: It's just that place at the other end of the bridge that leads from glamorous San Francisco.

Despite this, Oakland is proud of itself. It points with pride to the industrial development of its metropolitan area—that's Alameda County. The county is the nerve center of the far-flung Henry J. Kaiser enterprises. Two major calculating machine companies—Merchant and Friden—live there. So does Cutter, the largest pharmaceutical and biological laboratory in the Far West. So does the University of California, one of the largest in the nation.

• **Little Brother**—All this and plenty more is located in the Oakland metropolitan area. But you'd never know it from the publicity that flows so copiously to San Francisco—and lumps in little brother across the bay as just some more of the same.

Don't think that Oakland takes the position of Tail-end-Charlie lying down. Far from it. Its Metropolitan Oakland Area Committee, which is financed entirely by city and county funds, has pioneered in the field of luring industry into the area.

• **A First**—In a very few days, MOA is going to ring up another promotional first: singing its industrial advantages by television. The first firm TV commitment has been made with New York's station WPIX. Three five-minute sound films have been prepared and will be televised by WPIX at 4:55 p.m., Mar. 30; 8:15 p.m., Apr. 2; and 4:55 p.m., Apr. 6.

Eventually, MOA is thinking of using a second New York station, plus single outlets in Cleveland, Detroit, and Chicago. How far the committee goes depends on the response to the WPIX trial.

MOA has built its films around testimonials from major executives of national companies that have branches

in Alameda County. The companies are General Foods Maxwell House Div., Detroit Steel Products Co., and St. Regis Paper Co.

Besides these plugs, the films will show general views dramatizing the area, its existing plants, its climate, transportation, labor supply, and the size of the available markets.

• **Third Choice**—The TV campaign was dreamed up by Ryder & Ingram, Ltd., the Oakland advertising agency that handles MOA's account and its \$70,000 annual budget. TV was arrived at by a process of elimination. First choice in effectiveness would have been to bring prospects to Oakland for a personal look. But as Ross H. Ryder, a partner in the agency, pointed out, that was impossible. Real prospects insist on anonymity to avoid sales pressure. The only way to reach them without breaching this anonymity is to put ads in business magazines. MOA had been doing this for a long time, but wanted to expand its drive into other fields, at least experimentally.

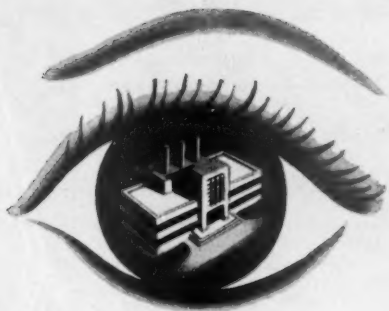
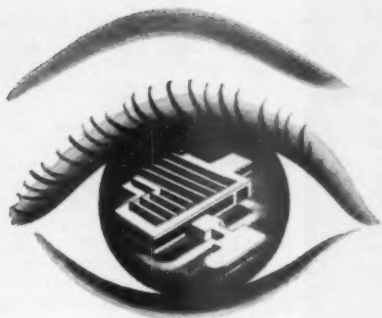
Second choice of gimmick would have been a full-length feature film, which could be sent to any serious prospect or his broker. Cost of any really effective film knocked this out, too, and left the field to TV.

• **Groping**—Even here, of course, expense ruled out anything really extensive. But the five-minute films came well within budgetary requirements. So far MOA is moving gingerly along the TV path. It isn't even sure yet in what order to show the films. Response to the WPIX casts in New York is expected to provide guidance for the next steps.

Just to make sure that the right audience gets to look at the films, MOA will use mail, phone, and telegram to spread the glad tidings. First target of this drive will be the 228 national firms that now have roots in Alameda County. The idea is that they will tell their friends.

• **Results**—Metropolitan Oakland went into the business of shaking the little brother label way back in 1936. Its drive then to attract industry is believed to have been one of the first in the country. Results are not hard to find. Since the war, new plants and expansions in the area have totaled \$209-million. In 1951 they hit a \$3.6-million-a-month clip.

"Little" Alameda likes to throw statistical rocks at big San Francisco. It points out that its county—though one of the smallest in the state—is still 16 times bigger than San Francisco county. And then take population: By 1950 Alameda had climbed to 740,000, just a shade under San Francisco's 775,000. The clincher: Since 1940, Alameda has grown twice as fast as its overshadowing rival.



Seeing is believing—in the SOUTH!

IT'S hard to believe it until you see it. But "seeing is believing." And wherever you look in the modern Southland today, you see new factories going up and established industries expanding. There were 292 such developments last year along the 8,000-mile lines of the Southern Railway System alone.

The production of manufactured articles of every kind is at a new all-time high in the South. Consumer markets, too, are expanding as never before. And per capita income is growing at a faster rate than the national average.

It's easy to believe when you see it. And it's easy to see it. Just—

"Look Ahead—Look South!"



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RAILWAY SYSTEM

WASHINGTON, D. C.

Harry A. W. Watts
President

The Southern Serves the South

Only TAC has perfected the open-end ratchet wrench...

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Defense industries. Savings in time and labor cost are exceptional. Will operate with as little as 7" and on.

fittings, tubing, pipe, rail, cable, etc. Detachable sockets and adapters multiply the tool's utility! Sockets sizes from 1/2" to 4". Also made in standard pipe sizes, as any size will readily accept. TAC does what no other tool can do.

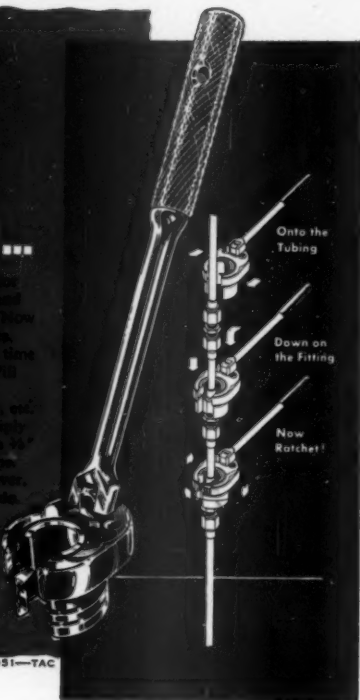
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Job for a Doctor

Textron to hire the man who patched up Nashua after it moved out. He'll handle similar problems elsewhere.

When Textron, Inc., pulled out of Nashua, N. H., in 1948, it left a very sick town. A doctor was called in, and worked a miraculous cure. Next week Textron will put the doctor on its own payroll—to take care of any future sick towns.

The doctor is a California-born Down-Mainer, named Laurence C. Plowman. His title will be vice-president in charge of the newly formed Industrial Buildings Dept. His function: to fill all space that may become available in any of Textron's 22 plants with new and diverse industry; to maintain or expand employment in plants that Textron may find are no longer economical to operate itself. This adds a new dimension to plant-community relations.

• **Shipyard**—If past success is any measure, Plowman should do well. Just after the war he organized a company that took over two shipyards in South Portland, Me. The yards had over 1-million sq. ft. of space, but were employing not a soul. Today a variety of industries—from an oil terminal to a clothespin manufacturer and wine bottling plant—fill every inch and employ over 2,000 people.

Plowman caught Textron's eye at Nashua. Textron had decided it was no longer economical to run its huge textile operation there. In December, 1948, it sold all its plants (2.7-million sq. ft.) to the Nashua-New Hampshire Foundation, formed for the purchase by local citizens and managed by Plowman. The Foundation leased back the Jackson Sheet Mill (1-million sq. ft.) to Textron for 10 years and then Plowman set about finding industry to fill the rest.

By last week he had filled all but 20,000 sq. ft. with industries that range from a mail-order greeting card company to an electronics manufacturer and a shoe producer. At the time it withdrew from Nashua, Textron was employing 3,100 people. Plowman has brought in that many replacement jobs and a hundred more.

• **Sheeting Mill**—Plowman's first job at Textron will be to find industry to fill the 1-million sq. ft. of Textron's Jackson Sheet Mill in Nashua. The company has seven more years to go on its lease, but is anxious to sublet. That's exactly what Plowman urged Textron to do while he was manager of the Foundation.

Ohio Electric SERVES AMERICAN INDUSTRY

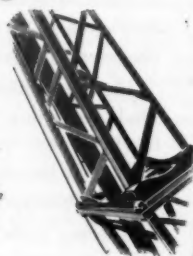
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A-4922



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Nebraska offers great opportunity as plant location

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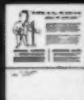
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POLITICS



LODGE, Eisenhower's man, battles with . . .



INGALLS, Taft's campaign manager.

REPUBLICAN CAMPAIGNERS ARE

Throwing Figures Around

In political warfare, the targets stay the same but the weapons change. A century ago the principal weapon was the torchlight parade. Today, it seems to be the advanced art of facts and figures.

This battle of statistics now rages in full force around the Taft-Eisenhower contest for the No. 1 spot on the Republican ticket this fall. Because their candidate is 3,000 miles away, the general's supporters must run his campaign for him. In place of their absentee candidate they are mobilizing the fire power of facts and figures. Taft's people in turn are out to combat this with their own statistical case.

• **Hard Fight**—Eisenhower's boosters usually start their sales talk with the proposition that the GOP faces the fight of its life in 1952. They discount heavily the notion that all the hullabaloo about corruption, mismanagement, and Communist influence in Washington means a shoo-in for any GOP nominee. They insist that the outlook this fall is tough for even the best man the Republicans have (Ike, to them).

To support their case Eisenhower men drape a good bit of statistical crepe:

• Republicans this year are running against one of the strongest currents in American political history: Only once since 1888 has the presidency been won by a party that lost the pre-

ceding Congressional election (Truman's feat in 1948). Republicans failed to win the House in 1950. To capture the presidency this year the GOP must repeat Truman's "miracle."

• The second half of 1952 promises to bring high employment, high wages, high farm income, and high profits. Only once since 1900 has the party in power been turned out when times were good: Theodore Roosevelt did it in 1912 when he split the GOP. In the other two cases of turnover of power, 1920 and 1932, business conditions were bad. In every other presidential year since 1900, business was good or improving and the "ins" stayed in. These are stubborn facts that the GOP must face in 1952. Good times and the fear that Republicans might endanger high prosperity will help the voters forget a lot of their grievances against the Administration.

• Twenty years out of power have reduced the GOP to the role of a minority party in this country. A survey by the American Institute of Public Opinion shows that 40% of the voters in this country consider themselves Democrats, only 32% Republicans, and 28% Independents. So, say the Eisenhower men, we need a candidate who will appeal to this critical "swing" vote. To support the contention that their man is the one, they wheel out a Gallup poll published Mar. 3, 1952, that tested independent vote preference among

GOP hopefuls. The poll came up with these results:

Eisenhower	37%
Taft	17
Warren	13
MacArthur	13

• **"Bunk"**—Eisenhower backers say the general is the only man who can overcome these three formidable handicaps for the GOP this fall. Taft men say: "Bunk."

To counter the Eisenhower statistical case, Taft supporters take two general lines. One is to pooh-pooh the polls. They point out that the pollsters whose figures Ikemen cite most—Gallup and Roper—went wrong in 1948. But they know that Ike's margin in many of the key polls is too big to be charged up to sampling error and that interest in political polling runs very high. So Taftmen use polls too.

• **More Figures**—Taft's leaflet, "Speaking of Polls," cites one nationwide survey, Gallup's test of sentiment among GOP county chairmen. This shows Taft leading 3-1. The other favorable Taft polls quoted, as the Eisenhower critics are eager to point out, are merely statewide or local.

• **The Independents**—But the main Taft attack against the statistical case for Eisenhower concerns the independent voters. Taft himself thinks the number of real independents is small and unimportant.

Taft's idea on independents is that they are merely uninterested voters. The way to get them to the polls as Republican voters is indirect: Inflation your own Republican supporters so that they will go out and bring the independents in.

To support his position Taft cites the experience of the Ohio elections of 1950. In off years only about 50% of Ohio voters turned out. In 1950, Taft states that his aggressive campaign plus good organization work brought out 60% of the voters. He won by 431,000—and that's the proof of his theory, he says.

• **Reply**—Eisenhower supporters retort that this is too simple a handling of the independent voter problem. They think the independents make up a big pivotal group. They reject Taft's view that all the Republicans have to do is to get out a larger total vote.

Ikemen cite the fact that, in 1948, when 464-million votes were cast for congressional candidates, the Democrats scored a plurality of 3-million. But in 1950, when only 404-million votes were cast, the Democratic plurality was reduced to a mere 55,000.

The other main attack of the Eisenhower camp on Taft's theory of victory through a bigger total vote is based on a study by George Gallup. He reports: "If a law were passed compelling every adult in the United States to vote next November, the Democratic party would have an enormous advantage. It would gain two additional votes for every one gained by the GOP if the turnout were to be 90-million this November instead of the anticipated 55- to 60-million." Gallup, on the basis of his institute's surveys, gives the Democrats 40-million votes; Republicans, 26-million; Independents, 20-million; 4-million are left undecided.

• **Taft's Big Gun**—The statistical big gun of Taft supporters is his overwhelming Ohio victory in 1950. Out of 88 counties in Ohio, Taft carried 84, including every industrial county in the state. He carried the big cities as well as the rural areas. His victory climaxed a record of winning every time he has run for office in Ohio.

• **Sandbag**—Eisenhower people use a flank attack on this Taft strong point. They stress the weakness of his 1950 opponent, "Jumping Joe" Ferguson (who, given a quotation from Patrick Henry during the campaign, is reported to have said: "That's good—get him as a speech writer"). Ikemen also recall that many politicians—such as Al Smith, Landon, Dewey, Warren—have been great vote-getters in their own states only to flop in nationwide tests.

The only statistical attack that the general's backers have been able to bring against the significance of Taft's Ohio triumph is from a study "Presidential-Congressional Voting: A Coattail Analysis," by Prof. Malcolm Moos of Johns Hopkins University. This report pays tribute to Taft's "splendid personal demonstration of voting strength" but casts doubt on his pulling power in behalf of other GOP candidates on the ticket. For example, while Taft was beating Ferguson by 431,000 votes, the Republican candidate for governor went down to defeat.

Prof. Moos' analysis goes on to make a comparison of the congressional results in the last two off-year elections, 1946 and 1950. In 1946 John Bricker won a seat in the Senate with 57.4% of the vote. He carried 19 Republican congressmen in with him. In 1950 Taft received almost exactly the same share of the vote—57.5%—but carried in only 15 GOP congressmen.

• **No Coattail**—Although the Ohio Republican delegation in the House made a normal off-year recovery in 1950 from



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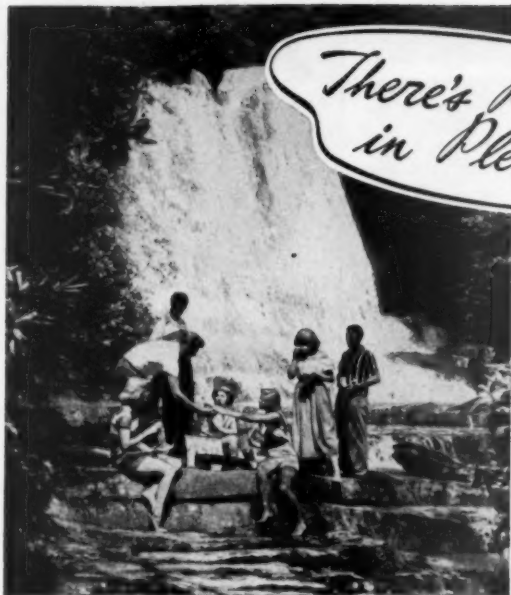
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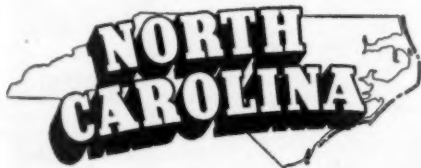
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100 PAGES
200 PICTURES

"... In a poll of Republican congressmen, Taft was the choice by almost 3-1 ..."

REPUBLICANS starts on p. 94

the low point it had reached in the Democratic sweep of 1948, the gains failed to bring the delegation back to its 1946 strength. This, say the Eisenhower men, shows that Taft's 1950 Ohio triumph leaves serious doubt about his pulling power for the Republican ticket as a whole. To them Taft has no coattail.

• **Parry**—Replying to this argument, Taftmen cite one fact: In a poll of Republican members of Congress, in which about half of the 202 members responded, Taft was the choice over Eisenhower by almost 3-1. Ikemen, on the other hand, say this was pre-New Hampshire and Minnesota. Furthermore, they are sure that in the case of the marginal GOP congressmen—those hanging on by less than a 5% majority—the preference is for their man. They insist that it's those seats, not the safe ones in solid GOP territory, that will tell the story of congressional control next year.

• **Check**—The statistical battle between the Eisenhower and Taft camps had some realistic checking in the New Hampshire and Minnesota primaries. In these tests, the general won almost all the statistical debates. His final margin in New Hampshire was 10,823 votes. The total vote in the Republican primary jumped 40% over 1948. This big registration of new voters from all over the state suggested that independents or "uninterested" voters had a big part in the result. Eisenhower supporters said it proved their point: Ike appeals to the independent voter. They argue that Taft's theory that he could arouse regular Republicans to get out the "uninterested" vote for him fell flat.

Taft supporters have been dismissing the New Hampshire test as unimportant, but they do cite his victory in the state's largest city, Manchester, as proof that labor isn't hostile. Eisenhower boosters reply that their man carried the 11 other large cities in New Hampshire.

• **What Now?**—New Hampshire and the voter upsurge in Minnesota confirmed a good deal of the statistical case for Ike and jarred a good bit of Taft's. From here on it's a matter of whether these tests were a good sample of Republican sentiment. Now that Taft has abandoned the New Jersey preferential primary Apr. 15, the two men will not meet face to face again before the Republican convention gets under way July 7 in Chicago.

Preparedness

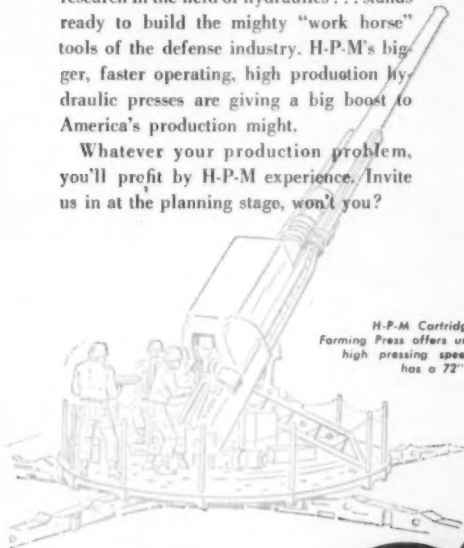
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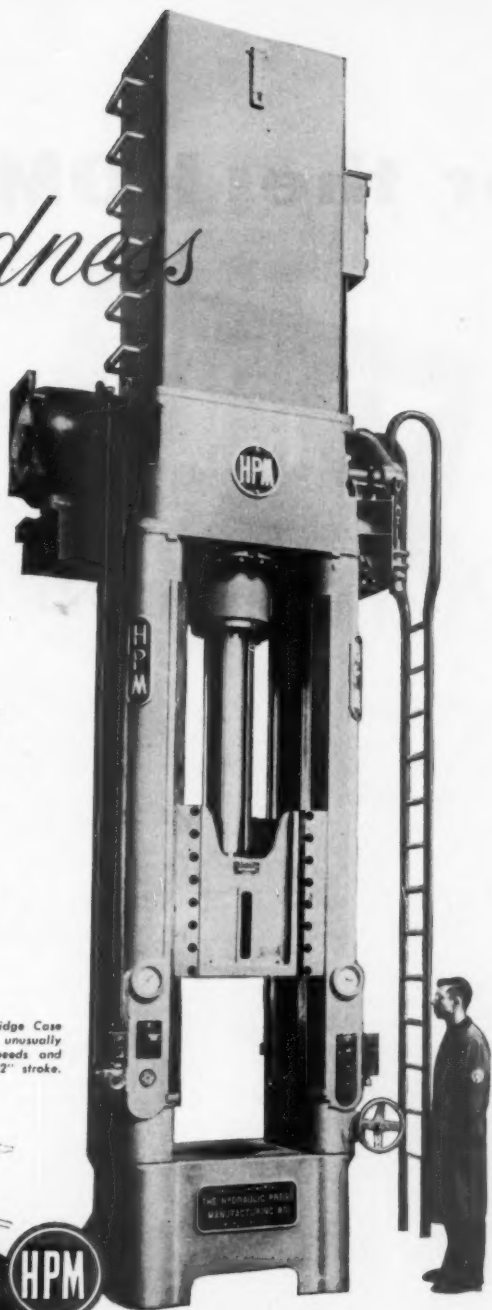
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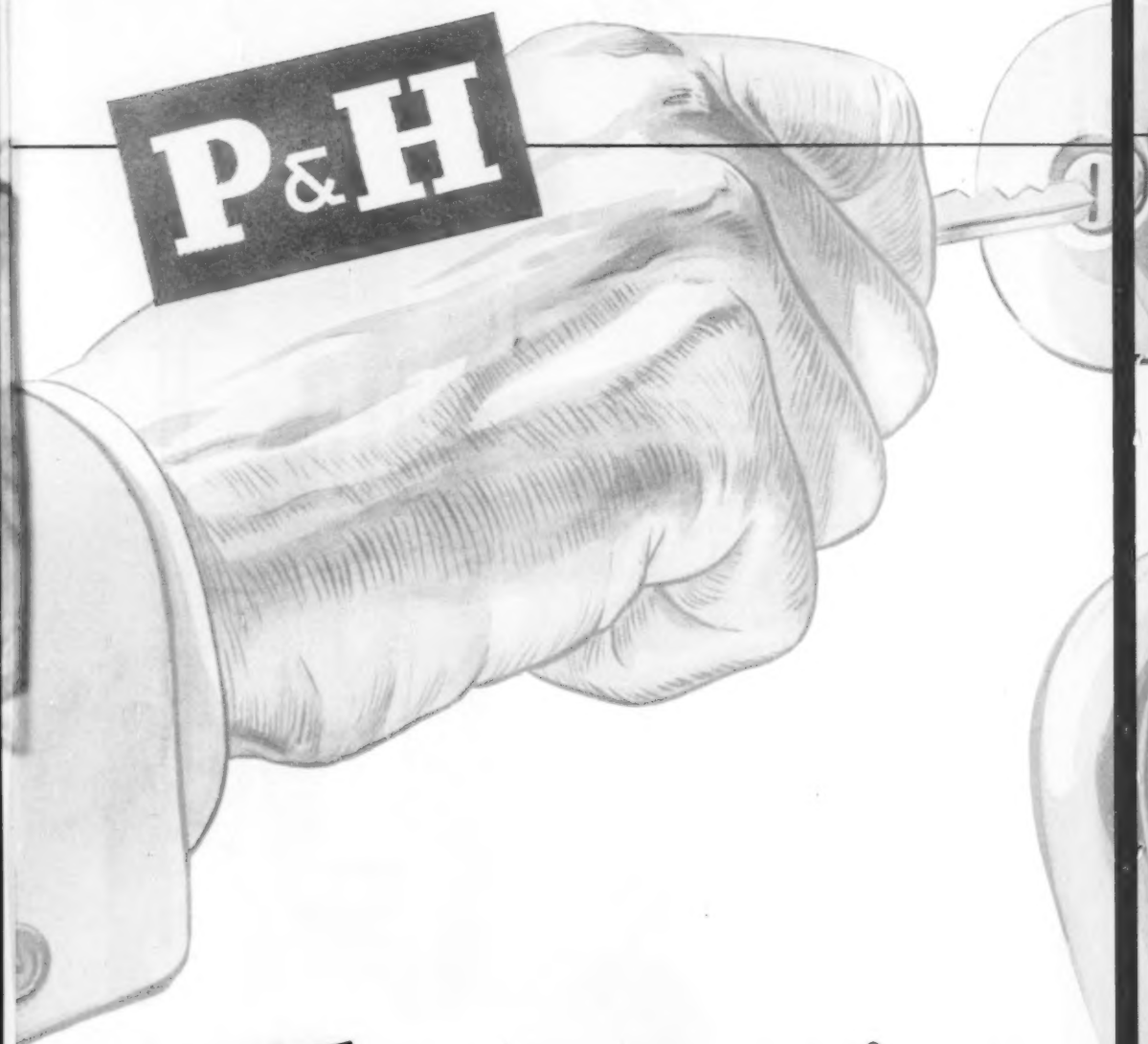
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COMPANIES



WASHING MACHINES on overhead conveyer dramatize story of top builder of home laundry equipment. Sears does the selling for . . .

Whirlpool: Biggest—And Still Growing



ELISHA GRAY, Whirlpool's president, hopes to jack sales up to \$150-million.

There are times when a big fish might be satisfied to flop around cozily in a small pond. But there are other times—notably when the fish gets too big to flop—when there are decided advantages in swimming out to the ocean. That was the case this week with Whirlpool Corp., biggest U.S. manufacturer of home laundry appliances and sole supplier of Sears, Roebuck & Co.'s Kenmore line of washing machines, driers, and ironers.

• **Merger**—For 40 years Whirlpool has operated from the small town of St. Joseph, Mich. (population: 10,200). The company's plant there turns out more than 20% of the country's home laundry equipment. In 1951 its \$88.1-million sales pulled it past its closest rival—Maytag Co.—and put Whirlpool in top place among laundry appliance makers by a margin of about \$6-million. The company got so big that it was eventually paying 30% of all taxes col-

lected in St. Joseph for schools and government. The pond was rapidly becoming all fish and no water.

Finally, a chance opened up for a merger with Clyde Porcelain Steel Corp., a maker of laundry appliance parts with its plant in Clyde, Ohio. The merger would give Whirlpool new facilities, let the company go ahead with a planned near-doubling of production without laying out \$10-million for a new plant. It would give the company a central location, easier access to suppliers and distributors, a fresh labor supply. And it would enable Whirlpool—a community-conscious outfit—to take some of the pressure off St. Joseph.

Clyde Corp. stockholders have already approved the merger by an overwhelming majority. At press time it seemed pretty certain that the Whirlpool stockholders would go along, too.

• **Success Story**—Whirlpool started out in 1911 as Upton Machine Co. Main

The name to watch in chemicals



ORONITE CHEMICALS HELPED REVOLUTIONIZE THE NATION'S WASHING HABITS

In a few short years there has been a revolutionary change in the nation's washing habits, due to the broad use of new detergents.

Oronite mass-produces the basic chemical which others process into these finished detergents. You never see the name Oronite on a package of household detergent but compounds made from our detergent products are used for cleaning everything from dishes and fruits and vegetables, to railway cars and planes.

Versatile but unseen chemicals, produced in quantity by Oronite, are silent partners in many, many industries—making products and processes better, more competitive. Still other industries will benefit from future Oronite chemicals.

Perhaps one of our present Oronite chemicals would prove profitable to you in improving a product or process. Possibly we could place a chemical you need in mass production. Why not talk it over with us?

ORONITE CHEMICAL COMPANY

38 SANSOME STREET, SAN FRANCISCO 4, CALIF.
30 ROCKEFELLER PLAZA, NEW YORK 20, N.Y.

STANDARD OIL BLDG., LOS ANGELES 19, CALIF.
600 S. MICHIGAN AVENUE, CHICAGO 5, ILL.
MERCANTILE SECURITIES BLDG., DALLAS, TEXAS

"...Sears exercises no more influence than would any ordinary customer..."

WHIRLPOOL starts on p. 101

product at that time was air rifles. The real Year One for the company, though, was 1916. It was then that Whirlpool signed up to make private brand washing machines for Sears, Roebuck & Co. That was the beginning of an informal, mutually beneficial relationship that soon ripened into close teamwork. In 1925 Whirlpool became Sears' sole supplier.

At no time has there ever been a formal contract between the two. The relationship is purely that of supplier to customer. Sears exercises no more influence on product engineering, production, and sales programs than would any ordinary customer.

Not that Sears couldn't boss Whirlpool around, if it wanted to. Neither company will say how much of Whirlpool's production goes into Sears' Kenmore appliances and how much into Whirlpool's own name brand, but it's no secret that Sears gets the lion's share.

• **Good Deal**—This arrangement has its benefits for both companies. The advantage to Sears is plain: The company has a single, steady source of supply for a well-made product—where both source and product have spent 36 years proving their reliability.

Whirlpool's president, Elisha Gray II, sees three distinct advantages from his side of the deal:

• Whirlpool has a single big customer. This customer—barring some unforeseen turn of events—will keep on buying indefinitely in huge quantities.

• Sears sends Whirlpool, regularly, a scientific sampling report on service calls made by Sears' appliance repairmen. This helps Whirlpool engineers spot mechanical weak spots in the company's products.

• Weekly reports from Sears on sales of Kenmore laundry equipment keep the Whirlpool management right on top of market conditions, permit quick adjustment of production schedules.

• **Roll With the Punch**—Whirlpool learned late in 1948 just how valuable that last advantage can be. Top management was casting around at that time for ways of speeding up production on current models. Then a report came in from Sears, indicating that sales of the Kenmore line had slumped badly that week. The following week's report told the same story.

Whirlpool took the cue. Instead of expanding production, the company cut back. Materials orders were canceled



"I wonder what happened to me!", said Alice

ALICE in Wonderland ate the magic cake and grew until she was more than nine feet tall. Our National bureaucracy also seems to have partaken of the magic cake of power. Bureaus in our government have grown in number and scope until their activities now control, to a great extent, the lives of all individual Americans. Department after department adds more and more people--state, justice, commerce, treasury--not to mention those sprawling emergency born agencies of price control, N.P.A. and other alphabetical subdivisions.

The number of employees of our federal, state and local governments continues to grow. During many recent months, personnel was added

to the federal payroll at the rate of 1,500 daily.

What is the reason for this mushrooming? The Korean War? Threat of war in Europe, Southeast Asia, or the Middle East? Obviously not! A glance at the federal budget gives the answer. The estimated cost of all governmental functions for the fiscal year 1952 is in excess of 70 billions of dollars, an increase of 26 billions, or approximately 60% more than last year.

When will it end? Only you, the individual citizen, who carries the bureaucratic load on his back, can stop it. It will end when enough patriotic men and women demand from congress that the Washington Wonderland start shrinking back to reasonable proportions.



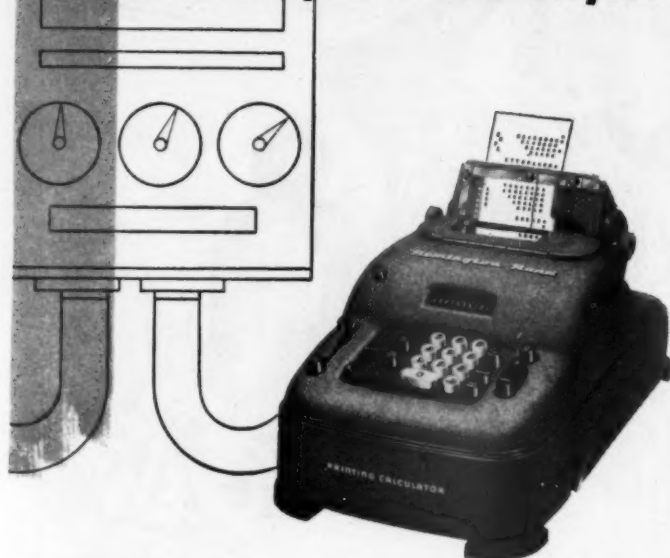
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or revised. In the meantime, to take up the slack, work on the next year's (1949's) models was stepped up.

Sears' reports proved to be reliable thermometers. By early 1949, major appliance buying was in a slump. A lot of manufacturers, distributors, and dealers were left stranded with heavy inventory. But Whirlpool came through with no trouble. Furthermore, it was able to bring out its 1949 models much earlier than planned—effectively combating buyer resistance with the new lines.

"That kind of knowledge is going to help us in building up our own brand name lines," Whirlpool's Gray adds. "It will help our distributors and dealers, too—and they know it."

• **Proof of the Pudding**—Largely as a result of this happy relationship with Sears, Whirlpool has climbed rapidly into the big-business bracket. Unit production has gone up more than 50% since the end of the war. This production increase was principally in the higher-priced units—automatic washers, driers—so the increase in dollars looks even bigger: 1947 net sales were \$23.9-million; 1951 sales, \$88.1-million. Net profit in 1947 was just under \$1.5-million; 1951 net was nearly \$3.5-million.

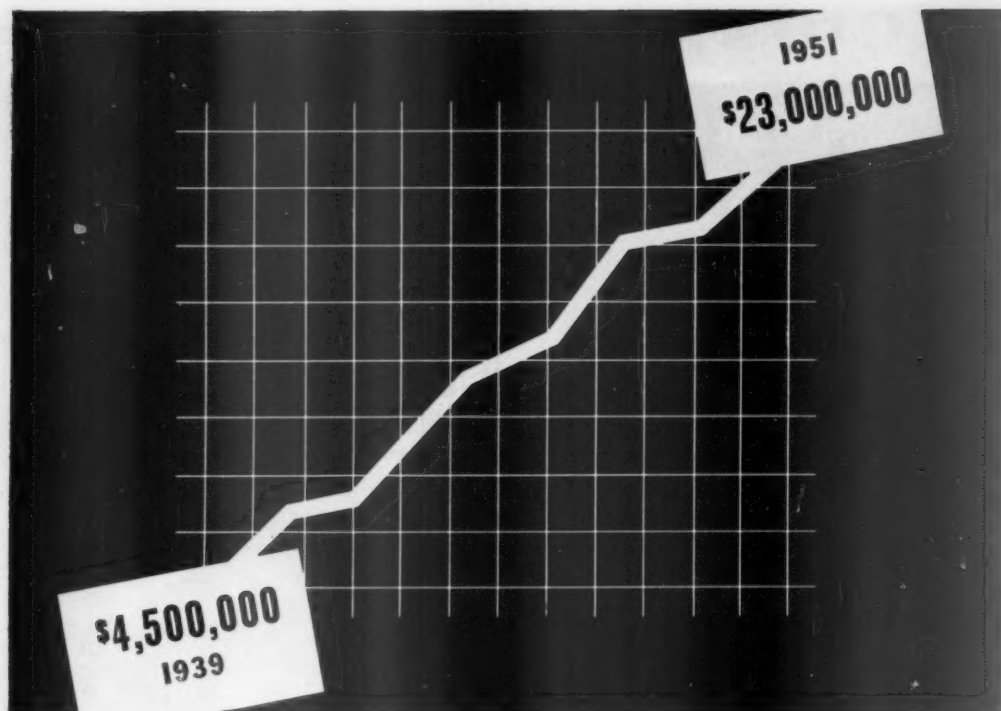
This 1951 net profit figure is more than \$1-million below the 1950 peak. Increased taxes, increased production expenses made the difference.

• **Clyde**—Whirlpool's present goal is \$150-million in sales. The merger with Clyde Corp. should let the company achieve this without too much strain. Gray says happily: "It's the answer to all our hopes."

Under the terms of the merger, Whirlpool will be the surviving company and its management and directorate will stay in the saddle. The Clyde plant, eventually, will be integrated completely into Whirlpool's operations. It will probably turn out wringer washers, ironers, and driers, while the St. Joseph plant will concentrate on automatic washers—which right now account for about 60% of Whirlpool's total washing machine business.

• **Own Name**—Whirlpool's plans for the future also include a stepping up of promotion for the company's own brand appliances. The Whirlpool washers sell for about \$50 more than the Sears Kenmore models. Extra gimmicks and plusher fittings account for the price differential; the two machines are built along the same general pattern.

Since Whirlpool's main strength is in production rather than marketing, however, it is doubtful whether the Whirlpool brand will ever outstrip the Kenmore or Whirlpool's production charts. Sears has the great marketing power; the relationship between the two companies is too good a thing for either of them to pass up lightly.



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STARCHES

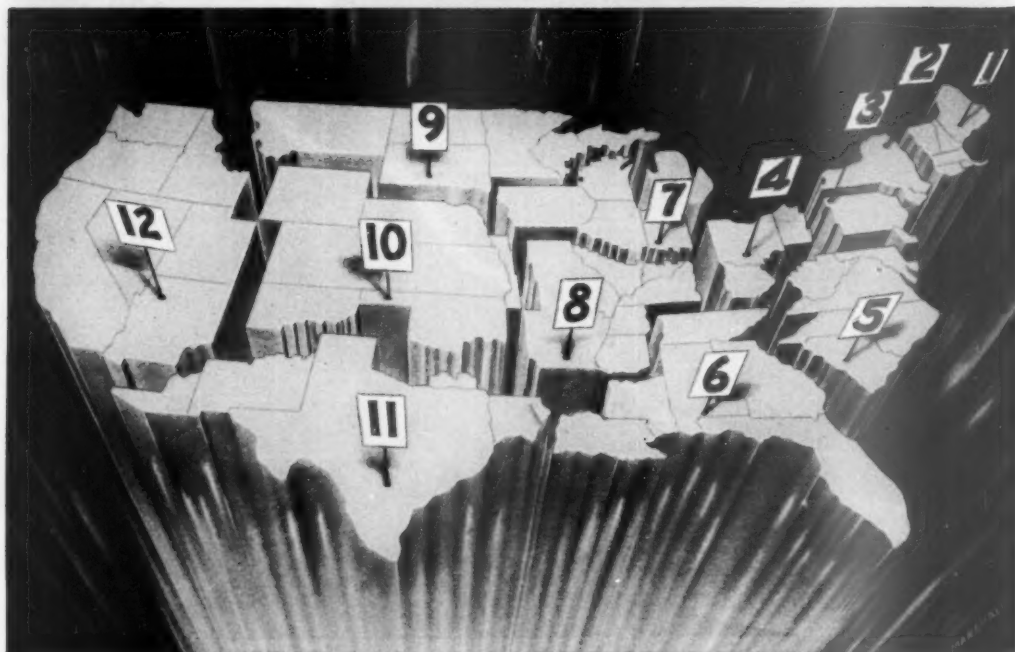


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REGIONAL REPORT



Federal Reserve District	January 1952	December 1951	January 1951	Federal Reserve District	January 1952	December 1951	January 1951
1. Boston	234.3	234.3	223.8	8. St. Louis	282.5	280.0	265.5
2. New York	246.5	247.8	237.6	9. Minneapolis	298.6	304.4	290.2
3. Philadelphia	246.6	247.7	240.6	10. Kansas City	344.3	343.4	321.8
4. Cleveland	274.4	272.4	257.3	11. Dallas	375.0	375.8	341.6
5. Richmond	289.1	289.0	263.2	12. San Francisco	311.3	315.8	295.1
6. Atlanta	322.1	329.2	298.9	U. S. Composite	281.8	283.2	266.8
7. Chicago	327.4	280.4	268.0				

1941=100, adjusted for seasonal
January figures preliminary; December revised.

Quirk In Tax Law Pushes Incomes Down

Income dipped sharply—1 of 1%—between December and January, according to the national composite of BUSINESS WEEK'S Regional Income Indexes.

Principal cause of the dip was a sharp drop in dividend payments. It was caused by a quirk in the excess profits tax law. Dividends paid during the first 60 days of the year reduce the base credit for computing the excess profits tax. As a result, many companies put off dividends until March.

So dividend payments dropped in January. March figures should show a rise.

• **Five Regions Up**—Despite the overall drop, five regions out of 12 registered increases in January. Two largest gainers were the Atlanta and St. Louis regions.

The two regions with the largest January losses—Minneapolis and San Francisco (page 112)—blamed most of the loss on unusually bad weather.

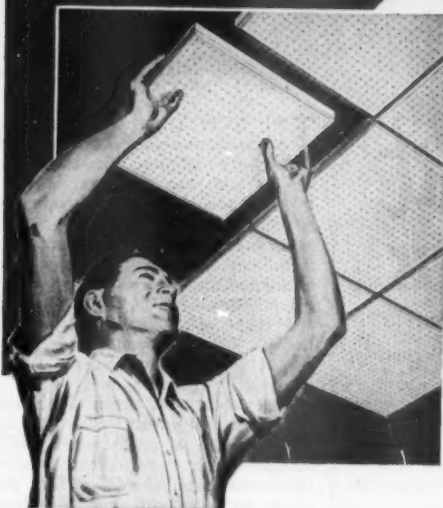
• **Farm Prices Slip**—The outlook for 1952 farm income has clouded with the

steady slide in most farm prices. Commodities whose prices have slipped include most of the blue-ribbon money-makers—wheat and other food grains, cotton, meat animals, poultry, wool, oilseeds, fruits, truck crops.

Prices of dairy products and potatoes have not joined the general downtrend. Feed grains have eased some, but not so badly as most of the other commodities.

The weather, on the whole, is generally encouraging to farmers. Plenti-

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Other Johns-Manville Acoustical Ceilings include *Permaconstic**, a textured, noncombustible tile with great architectural appeal; *Transite**, panels made of fireproof asbestos; and *Sanacoustic**, perforated metal panels backed with a noncombustible, sound-absorbing element.

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ful snow in the West insures plenty of irrigation water later. And recent rain and snow storms in the dustbowl area of the Southwest—though still inadequate—have added millions of dollars to the potential value of the winter wheat crop.



THE NEW YORK region is faring better, on the whole, in this period of defense mobilization than it did during the first years of World War II. Workers have shifted from nondurable to durable goods, and within the latter group from production of civilian goods to military items, with surprisingly little friction this time.

• **Optimistic**—Over-all, the region is in good shape, and most employers are optimistic. Complaints of serious shortages of materials have died down considerably.

The employment picture as a whole is one of near-balance. Shortages are limited mostly to a few highly skilled occupations in major defense production centers outside New York City; surpluses are mostly in nondurable lines and construction, and are most pronounced in New York City.

• **Durables Strong**—Strongest spots in the region continue to be the big centers of durable-goods production. Factory employment in New York State (and in New York City surprisingly) is ahead of a year ago. In Nassau and Suffolk counties on Long Island, manufacturers' payrolls are at a new all-time peak of over 75,000 workers.

In the leading upstate centers of New York, employment has leveled off. In Rochester, the number of factory workers is slightly above year-ago levels, although it's still below last July's peak. Biggest gain over a year ago is in photographic, optical, and scientific equipment, the city's dominant industry. But this gain is about balanced by the decline in the second-largest industry—men's clothing. As a result, there is still a fair surplus of labor. Unemployment

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STANDARD IRON & STEEL WORKS LIMITED

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D. Sackett,
General Manager.

is around 10,000, unchanged from a year ago. But none of this surplus is in skilled lines, so defense plants are working long overtime schedules because they can't find enough skilled hands to organize extra shifts.

• **Smaller Cities Off**—The same sort of picture can be seen in other major upstate defense centers such as Buffalo and Syracuse. But in the smaller upstate centers, such as Utica, Rome, Elmira, Binghamton, and Cortland, the picture is not so rosy. Here, the decline in employment in consumer industries (particularly nondurables) has not been fully offset by defense work. In Binghamton, for instance, the state Labor Dept. reports that "defense-allied firms are expanding more slowly than expected," while "several soft-goods firms have been badly hit by reduced inflow of orders." And in Cortland, "employment is steady in hard-goods industries," but "layoffs . . . reflect light orders for civilian goods." The Utica-Rome area is even worse off—it has experienced this same typical sluggishness in recent months and, in addition, one of its big employers, Mohawk Cotton Mills, closed up shop in January and moved south.

• **New Jersey Slow**—Northern New Jersey is also less active than the major industrial centers of upstate New York. Manufacturing employment there today is slightly lower than it was a year ago. The one exception is the Perth Amboy-New Brunswick area, which is very strong.

Aircraft is very important in the durable-goods picture in New Jersey, and employment in that industry is expected to drop slightly, or at best hold steady, because of the recent cuts in the government aircraft program. Also, the fall and early winter revival of the TV industry (BW-Jan. 5 '52, p47) proved short lived.

Cuts in the aircraft program also affect Buffalo, where Chevrolet's contract to build engines was halved. But it is not expected to have any appreciable effect either in the important Long Island aircraft plants or in Fairfield County, Conn. Bridgeport is by far the strongest spot in Fairfield.

• **New York Drags**—New York City is still dragging its feet. The city has been declared a labor-surplus area, but it hasn't seemed to help much yet. The apparel industry had a pretty good late fall season, but unemployment is now large and growing. Unions assert that 50% of the industry's workers in and around the city are "practically or totally unemployed." And efforts to channel defense clothing orders to the city have made little progress so far. Chief reason: In the main, the city's needle workers are highly skilled, so the local industry is not in a position to submit low bids on government contracts for standard

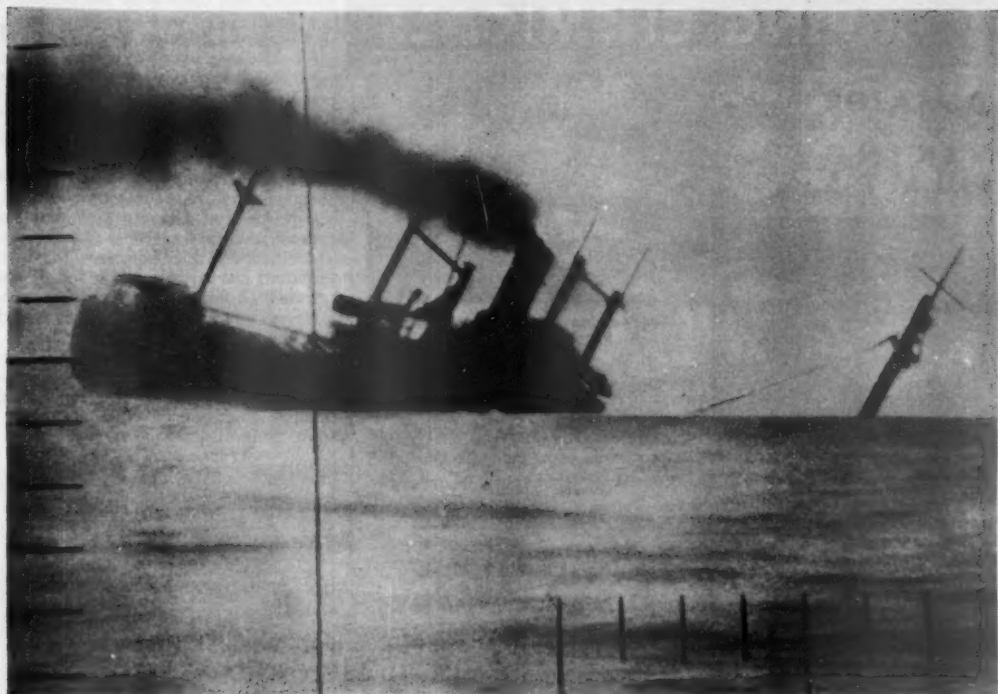


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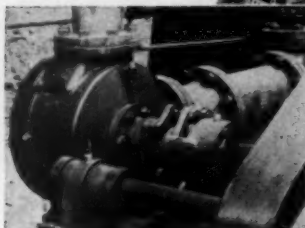
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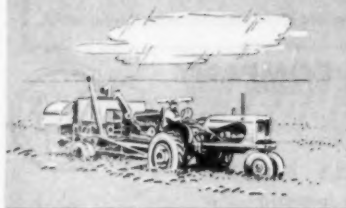
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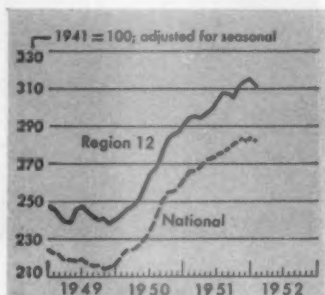


items where lower skills will do just as well.

• **Prospects Brighten**—But the outlook for the city's construction industry, which has been in a terrible slump since mid-1951, has brightened. Early this month, NPA approved 35 projects in the New York City area, with a total value of nearly \$18-million.

• **Farm Records**—Farm income in the region set an all-time record in 1951, with gains of close to 20% bringing gross receipts to well over \$1-billion. And it looks as if this year will be even better. Dairy products are the biggest source of farm income in the region. Prices are running about 10% ahead of this time last year.

The outlook for crops is also rosy. Good snow cover throughout the district promises abundant ground moisture.



San Francisco

ACTIVITY AND INCOME on the West Coast have finally started to pick up a little. The decline that started in October was at its worst in January, due to a combination of unusually foul weather and post-holiday losses in trade and government employment.

• **Spring Slow Coming**—Though January marked the low point, things are still moving at a slow tempo, with the spring pickup slower than usual. The weather is still cold and windy, with snow and sleet early this month as far south as Los Angeles. February employment levels showed a slight over-all gain over January, and March is up further, but not so much as was expected.

In the San Francisco Bay area, the Chamber of Commerce reports over-all business activity slightly below year-ago levels. Factory employment is rising slightly, due mostly to strength in machinery and electrical equipment. Apparel is rising less than seasonally. For the state as a whole, employment in this industry is 5,000 below a year ago. The Navy has announced that

employment at its Bay area shipyards will drop in the next six months.

• **Aircraft Hiring Slows**—Activity in southern California has started up again after declining through February. Employment is trending slightly higher, but the over-all gain is less than was expected. Aircraft hiring has slowed noticeably, for the first time since Korea, because of the stretchout in the government aircraft program. But it's still rising enough to make up for declines in auto assembly, textiles and apparel, and food packing. San Diego is easily the strongest spot in the state.

• **Weather Hits Lumbering**—The Pacific Northwest, including northern California, is still being held back by the bad weather. Reopening of the important lumber industry will be a slow process this year—the late, heavy snows closed the logging roads, and the heavy snowpack means worse than usual mud when it thaws.

Aside from the weather, however, lumbermen are happier than they've been in a long while. Plywood demand and prices are improving steadily, and orders for fir and pine have exceeded production ever since the first of the year.

Nevertheless, lumber industry employment in Oregon is 8,000 below a year ago.

• **Washington Up**—Washington is in better shape. Total employment is slightly higher than a year ago; defense industry increases have more than made up for declines in lumber, construction, and canning. Biggest factor in the year's increase is Boeing. Employment there has now leveled off at about 28,000. Revision of government aircraft schedules isn't expected to have too much effect at Boeing.

The weather is still slowing outside activity in Idaho and Utah. Idaho is still short of miners, and the Naval ordnance plant near Pocatello is actively recruiting skilled machinists, but otherwise there is a surplus of labor. In Utah, the government military installations, particularly important around Ogden and Tooele, are now hiring only for replacement.

• **Housing Shortage**—Arizona is just completing its most successful tourist season in history. That, plus expanding defense activity, is resulting in a critical housing situation in many spots.

Nevada is still getting increased mining development, but February and March storms have played hob with all types of outdoor work.

• **Farm Outlook Dim**—This region did not fully share in the general national farm-income boom last year. And this year's outlook is not too good.

In the more important farm states of the region, 1951's farm-income rise was well below the national average. The principal reason is that their pro-

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duction is heavily weighted on the side of fruits and food grains, which produced less income in 1951 than in 1950.

California maintained its position as the nation's farm-income leader, but the rise over 1950 was only 10%. In Oregon and Washington, the gains were even smaller. Low fruit prices were the big reason.

Arizona, Nevada, and Utah all topped the national average, with gains of 24% to 28%, principally because livestock is more important relatively in those states than in the coast states.

Continued weakening of prices is the most pessimistic factor in the outlook for 1952. In addition, the recent heavy, washing storms have eroded and silted a lot of good farm land. California's citrus groves have been hurt by rot. Its orange crop is down almost 10% from last year, its grapefruit crop is down almost 20%. Arizona citrus growers are even worse off.

But the weather's effects are not all bad. The abundance of snow cover has protected fall-sown grains, and heavy snow on the upper mountain slopes promises plenty of irrigation water.



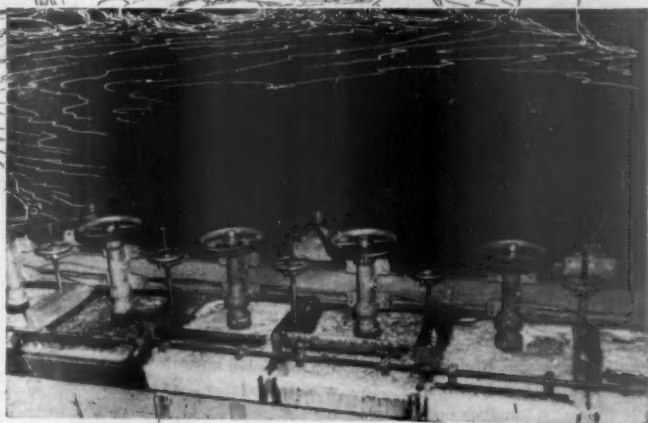
THERE HAS BEEN little change in this region over the past three months. Income in January was slightly below the October level, principally because of the continued depressed state of the textile industry, which accounts for some 30% of the region's total manufacturing activity.

There was a flurry of optimism in the textile industry back in January, when cotton consumption turned upward. But there was no follow-through; the consumption figure has turned down again. And despite curtailed output, manufacturers' backlogs are still declining slowly.

• **Carolinas Weak**—Textiles are relatively more important in the Carolinas than in other district states, so they're the weakest part of the district today. New plant construction was booming all through last year in South Carolina;



Out of the struggles of the mining industry to recover small amounts of valuable mineral from large amounts of otherwise worthless rock, came one concentrating equipment like the Flotation Machine in the top photo. A pioneer in the field of mineral flotation, the Denver Equipment Company has discovered many new, practical uses for its Flotation Machines. And stock Eberhardt-Denver Speed Reducers have become a part of this equipment.



Old Time Miners—and Eberhardt-Denver Speed Reducers—have helped make reclaimed paper whiter!

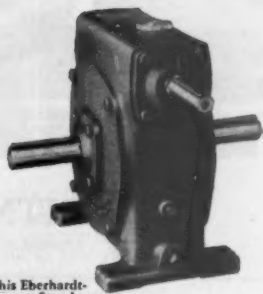
In metallurgical flotation mills, the mineral is separated from the rock by causing the mineral to float in a froth above the surface of a liquid of finely ground ore. The mineral is recovered by sweeping this froth from surface with rotating paddles.

This same principle of separation is now used to remove ink from waste paper, which can then be made into new white paper. Older methods of de-inking required 30,000 gallons of bleach water per ton which was flushed into nearby streams, killing fish and wildlife. Now the job is done better, faster with only 500 gallons.

In this custom-built flotation machine,

a stock Eberhardt-Denver Speed Reducer is used to run the paddle shaft at proper operating speed. It converts the high speed and low torque of a standard electric motor into the slow speed and high torque needed for the operation. Other Denver Equipment Company machines use stock Eberhardt-Denver Speed Reducers, too.

There are many undiscovered uses for Eberhardt-Denver Speed Reducers which will help make products better—perhaps *your* product. Why not find out how our engineers can speed your production and increase profits with Eberhardt-Denver Speed Reducers? Phone, write, wire today.



This Eberhardt-Denver Speed Reducer weighs 16 lbs. Others weigh from 5 lbs. to 1500 lbs. 80 stock sizes made for you. Stocked by distributors throughout the nation.

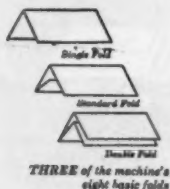
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now it has slowed to a snail's pace. There seem to be two reasons: material-allocation problems, and a "let's wait and see" attitude on how long the textile slump will last. One example: Celanese has temporarily stopped construction on its new plant near Camden.

South Carolina as a whole is somewhat better off than North Carolina, principally because of the Aiken atomic energy plant. Du Pont now has 28,000 construction employees, the number will rise to 46,000 by September.

• **Maryland Strongest**—Maryland is the strongest state in the district, followed by West Virginia and Virginia. And Baltimore is the strongest city in Maryland. Shipbuilding, aircraft, steel, machinery, and metal fabrication are all booming, and the port is very active. But textiles and apparel are in a slump.

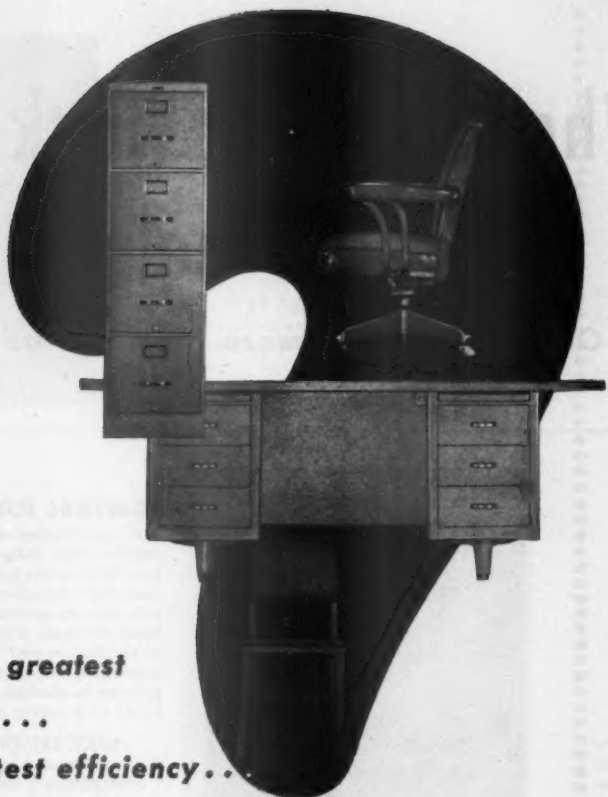
Another strong spot in Maryland is Hagerstown, with Fairchild and Pangborn both operating at capacity. Cumberland continues to be the state's weak spot.

• **Coal Output Down**—In West Virginia, total employment is slightly below a year ago, although payrolls are a small fraction higher. Coal production for the state as a whole is down. The glass and glass-fiber industry—at Charleston, Clarksburg, Huntington, and Parkersburg—is down slightly because of smaller orders from the automobile industry. The only really serious slump areas in the state, however, are the hardwood lumber section along Route U.S. 60, through the middle of the state, and the Martinsburg area at the extreme eastern tip of the state.

• **Virginia Steady**—Virginia has no substantial unemployment anywhere in the state; in fact, total unemployment is less than it was last summer. A few areas are spotty, because of the slump in textiles, apparel, and furniture. These include Bristol, Covington, Danville, Pulaski, and Radford.

The Hampton Roads area is the state's boomingest spot. There's a labor shortage, particularly in skilled metal-trades workers. Between now and May, it's estimated, Norfolk will need 2,500 more workers, Newport News 2,000. At Richmond conditions are stable—only nominal unemployment, but no real shortage either.

• **Farmers Pessimistic**—Sliding farm prices and skimpy feed supplies throw a dark shadow over the 1952 outlook for farm income. The region will have a hard job doing as well as it did last year, when despite spotty weather, farmers harvested big crops of cotton, fruits, and tobacco, and middling crops of corn and other grains. The size of the crops, combined with good prices, resulted in a very good farm-income year. Gains over 1950 ranged from 14% in West Virginia to 34% in South



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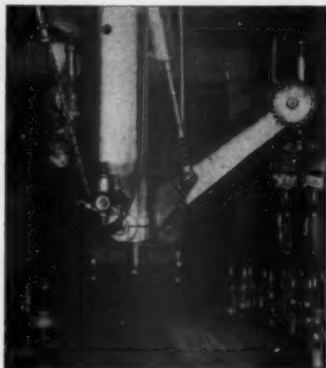


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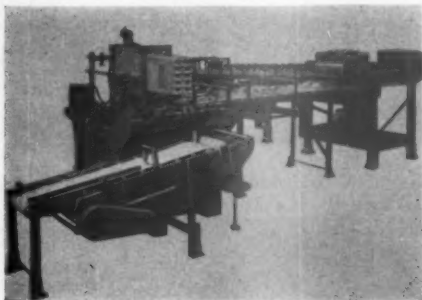
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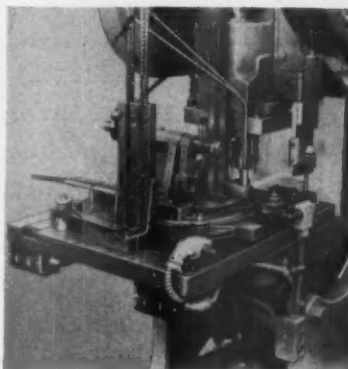
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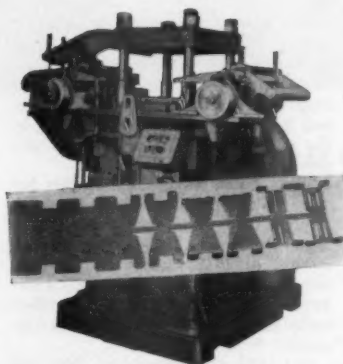


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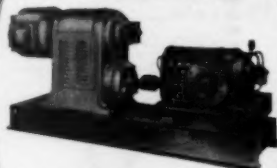
production skills here—clearly shows the unique combination of experience and know-how that you can put to use, no matter what you make.

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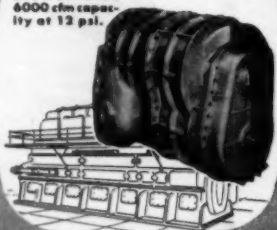
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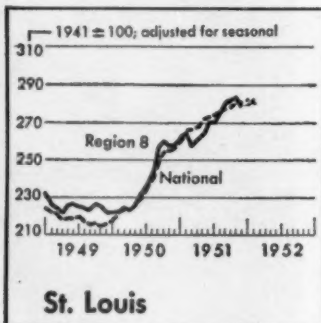
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Carolina; the average for the whole region was 20%.

This year's tobacco crops should about match last year's near-record harvest, and prices will probably be about the same as they were in 1951. But the outlook for cotton is less happy. Prices have slipped considerably since December, and farmers seem to have given up hope of a rise any time soon—evidenced by the fact that they're withdrawing their cotton from loan now instead of waiting. This uneasy attitude indicates that the Agriculture Dept.'s acreage goals will not be met.

The Southeast has led the rest of the country in beef-cattle expansion, with a gain since 1949 exceeding 20%. But precarious feed supplies and poor grazing made it hard—and expensive—for the region's farmers to carry their herds through the winter. So, with prices slipping, the income outlook from this source isn't too good.



BUSINESS CONDITIONS at the moment are just about static. Employment in the region as a whole has been following the normal seasonal trend very closely, and is expected to continue in that pattern in the next few months.

• **Louisville Even**—Louisville is still the most prosperous of district cities. But here, too, conditions have been just about static. Employment is down somewhat more than seasonally.

Principal reason is that the two industries that did the most to boost the Louisville economy in the months before Christmas—whiskey and tobacco—have turned soft. Most important cause of the distillery slowdown, industry men think, is consumer unwillingness to pay the higher prices due to the new tax rise.

Tobacco employment is slightly down, but the industry is confident that the long, steady rise in consumption of cigarettes will continue.

• **Furniture Weak**—Another weak spot is the furniture industry. Louisville furniture factories have laid off 250 workers in the past month.

Strongest industries in Louisville today are machinery and metals. The farm equipment makers, in particular, are doing better than was expected.

Evansville, after being a district weak spot for several months, is picking up sharply. It's one of the few cities in the country where over-all employment rose from December to January. A large gain in manufacturing, particularly in the important refrigerator plants, more than made up for the normal drop in retail trade employment. Servel, for instance, has hired 4,000 since December, almost doubling its payroll to a total today of 8,500. And it's still adding more than 300 a week.

As a result, factory employment in Evansville is at a new postwar peak, above 33,000, and is headed still higher.

• **St. Louis Gaining**—In St. Louis itself, employment has been moving about seasonally. Increases in apparel and shoe manufacturing and in defense production have slightly more than made up for declines in food, chemicals, and construction materials. Shoe production rose more than seasonally early this year, but the outlook is clouded by a government estimate that military orders this year will be only about half what they were last year.

• **Arkansas Off**—In Arkansas, nonfarm employment is below a year ago. A major part of the decline is accounted for by the sharply lower labor force in the lumber industry. On the bright side, bauxite mining is going full blast.

Western Kentucky continues very active. Latest rumor is that the Bureau of Mines has selected a site 75 mi. from Paducah for a big plant in which it will make synthetic gasoline from coal.

• **Soft Spots**—Weak spots in the region include the Herrin-Murphysboro-West Frankfort area in Illinois, and Vincennes, Ind. The Illinois area expects employment to start up next month, and hopes to be out of the woods by the end of May. But Vincennes sees only "a gloomy future" ahead.

• **Farm Labor Short**—Bad weather last year, which combined the extremes of drought and flood, held the region's farm-income gain below the national average of 17%. Gains ranged from only 10% in Arkansas (despite a 15%-larger cotton crop) to 22% in Kentucky (due mostly to tobacco and livestock).

For 1952, the Agricultural Dept. has asked sharply higher production in most of the region's major crops. Meeting these goals will require both intensive land cultivation and plenty of labor. While the region's farmers may be willing to farm more of their land, a large part of the district has only a scant supply of farm labor.



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TAXES

BIR's Slice of the Melon

Here's what happens, taxwise, when you receive a dividend or a stock right. The rules are different for five major types of distribution and their subdivisions.

Those dividends and other returns on your investments are always welcome, but they sometimes raise a difficult question about how much tax you have to pay on them, and what kind.

On some kinds of corporate distribution you pay ordinary income tax; on others you pay capital gains tax. On still others you don't pay any tax at all—only merely adjust the tax cost of your stock, the basis on which you later determine gain or loss from a sale.

There are five major types of corporate distribution: (1) cash dividend, (2) property dividend, (3) stock dividend, (4) stock right, (5) dividend of a regulated investment company. Here's how the stockholder is affected, taxwise, in each type and its subdivisions:

I. Cash Dividend

A corporate distribution that fills the legal definition of a dividend is taxable to the stockholder as ordinary income. Whether it's a dividend in this technical sense depends on the company's earnings and profits record. If the current year's earnings, less taxes, are sufficient to cover the total distribution, the stockholder is deemed to have a taxable dividend. If they're not, the accumulated earnings of all years since Mar. 1, 1913, (when the income tax law went into effect) are weighted against the amount distributed.

A distribution is always considered to have been made from the most recent accumulation of earnings, starting with the current year and working back to 1913. Except in liquidation, a corporation can't make a distribution from such sources as capital, paid-in surplus, or pre-1913 earnings until it has exhausted its current and post-1913 earnings.

Cash dividends are generally taxable; so are credits to the stockholder's account, unless there are strings attached to his use of the credited amounts. Corporate notes issued by a solvent corporation are also regarded as the equivalent of cash.

• **Not a Dividend**—Distributions that don't come out of earnings and profits aren't defined as dividends and are not taxable. Instead, they are applied to reducing the stockholder's tax cost of his shares until the full cost has been re-

covered. Only after that point are they taxed at all, and then only as capital gain.

These dividends that aren't dividends are usually distributed when:

- A company sells securities on which it has unrealized tax losses more than sufficient to offset other income (and doesn't have other post-1913 undistributed earnings).

- A company draws upon a depletion or depreciation reserve fund for the "dividends."

- A company distributes earnings accumulated prior to Mar. 1, 1913.

II. Property Dividend

Dividends received in property rather than cash are taxable against the stockholder at the fair market value of the property. This value, in turn, becomes the stockholder's tax cost for later determination of gain or loss on sale. The valuation can be a tricky problem, especially when the shares of a closely held subsidiary corporation are distributed.

III. Stock Dividend

When a corporation distributes its own stock to its shareholders instead of money or other property, the dividend may or may not be taxable.

Whether or not it's taxable depends on whether or not the stock dividend changes the proportionate interest of the stockholders. If it does, it's taxable.

For years the courts have wrestled with the taxability of stock dividends. The general rule today is this: It's not a taxable dividend if the shareholder's investment has been increased in form only—that is, if he has merely received additional pieces of paper—and his proportionate interest in the corporation is unchanged. A dividend of common stock on common stock satisfies this rule, and such a stock dividend has been held nontaxable.

The Supreme Court has also ruled as nontaxable a dividend of nonvoting common stock on either voting or nonvoting common, as well as a dividend of preferred stock on common stock where only common was outstanding before the dividend. But

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BUSINESS WEEK • Mar. 29, 1952



BUSINESS LOOKS UP



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Energetic J. Paul Neal of Des Moines, Ia., is an old hand at the real estate business but he's not opposed to new ideas. He and his son, Paul, Jr., do an amazing job of selling commercial and industrial sites, large farms and the like in five or six states.

Five years ago, Neal, Sr., discovered a way to expand his business and at the same time make it considerably easier to handle. The answer was flying . . . in his own private airplane.

Today, Neal owns a trim, 4-place Cessna 170 and both he and his son use it constantly . . . for personal contacts with distant prospects, for appraising and showing property from the air, for taking color aerial photographs of choice farms and sites . . . and for hunting and fishing trips to North Dakota.

Neal says definitely that he paid for the 170 three or four times over during the first year he owned it . . . with profits from deals he would not have attempted to handle without the plane. One quick trip, far outside his pre-plane territory, brought him a six-figure sale.

Both Neal and his son say that the relaxation they get from flying is as important as the speed. They arrive fresh—and they can go wherever they want, whenever they want, and get home faster. Both like the Cessna 170 for its simplicity of design—dependability and economy.

They particularly praise the Cessna Patented Landing Gear for the remarkable job it does in rough field operations.

As long as they have been flying, they have only been held up once away from home because of weather.



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For more information on Cessnas and more case histories on the use of Cessnas in businesses similar to yours, phone or see your local Cessna dealer. Or write CESSNA AIRCRAFT CO., Dept. 33, Wichita, Kansas.



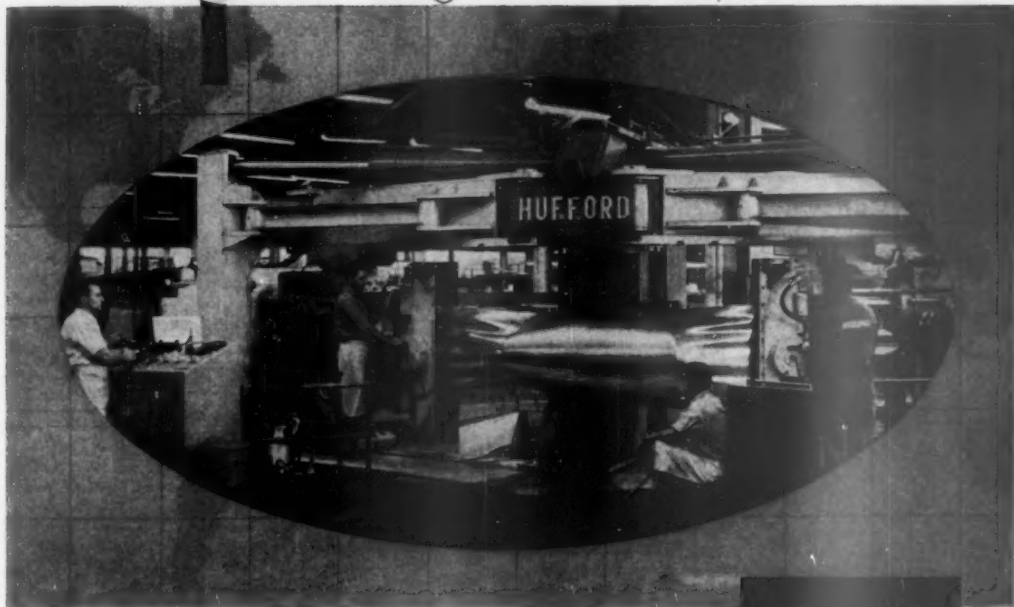
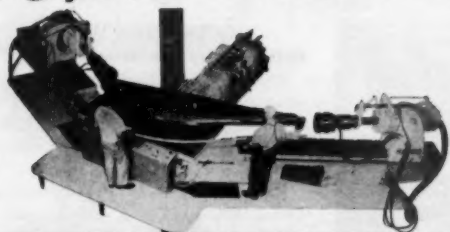
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Hufford Stretch-Wrap Forming is unique. It offers a new technique for forming metal to exact contour by stretching and simultaneously wrapping the material around a fixed-position die. Both extrusions and sheets are fabricated, frequently on the same machine to become structural frame elements of complex design or smoothly curved skin surfaces for aircraft, busses, railway cars, etc.

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ufacturer in the United States and by 86% of *ALL* aircraft manufacturers in the free world today! Production is not only faster but improved accuracy of parts saves immeasurable hours of assembly time. Die construction is comparatively simple and relatively low in cost.

Stretch-Wrap Forming is *another* of the many Hufford contributions which are speeding world-wide output of much-needed military equipment... *another* example of Hufford engineering which is developing advanced equipment for today's urgent industrial requirements.



If you want to know more about HUFFORD STRETCH-WRAP FORMING, a basic treatise titled "PRINCIPLES OF STRETCH-WRAP FORMING" explains in simple terms the why and how of this new process. A request on your letterhead will bring it.



a right to subscribe to bonds convertible into stock that wouldn't be a taxed dividend if it was issued directly, the stockholder isn't charged with taxable income either when he receives the right or when he exercises it. If he sells the right, he has a capital gain or loss.

The holding period for the bond—for figuring long-term or short-term classification—starts when the right is exercised. The holding period for the new stock obtained through conversion of the bond, however, starts when the right to subscribe to the bond was exercised, not when the bond was converted to stock.

V. Investment Companies

Regulated investment companies are permitted by law to pass on to their shareholders as a capital gain distribution the profits from sale of stocks. The shareholder reports the receipts as if he had personally sold a security after holding it for more than six months.

However, regulated investment companies also make distributions which meet the definition of taxable dividends, and they may also pay dividends that are taxfree. In the last case, the shareholder doesn't report the distribution as income, but he is required to apply it to reducing the tax cost of his shares in the company.

Generally, a regulated investment company announces to shareholders the percentage breakdown of a distribution into the three categories.

TAX BRIEFS

Working housewives in Birmingham, Ala., are putting pressure on their congressmen to push a tax law amendment that would allow them to deduct wages of domestic employees as business expenses. They claim they can't hold jobs without employing domestic help.

• Directors' fees are earnings from self-employment, whether they're paid for attending directors' meetings or for services on standing committees. When fees total \$400 or more, the 24% self-employment tax must be paid.

• Corporation income tax returns must be signed by two officers: the president, vice-president, or other principal officer and also the treasurer, assistant treasurer, or chief accounting officer. When Pike Holding Co.'s return was signed only by its president, BIR held that the return was invalid. The tax court agreed, and Pike Holding Co. paid a 25% penalty of \$700 for failure to file a return.

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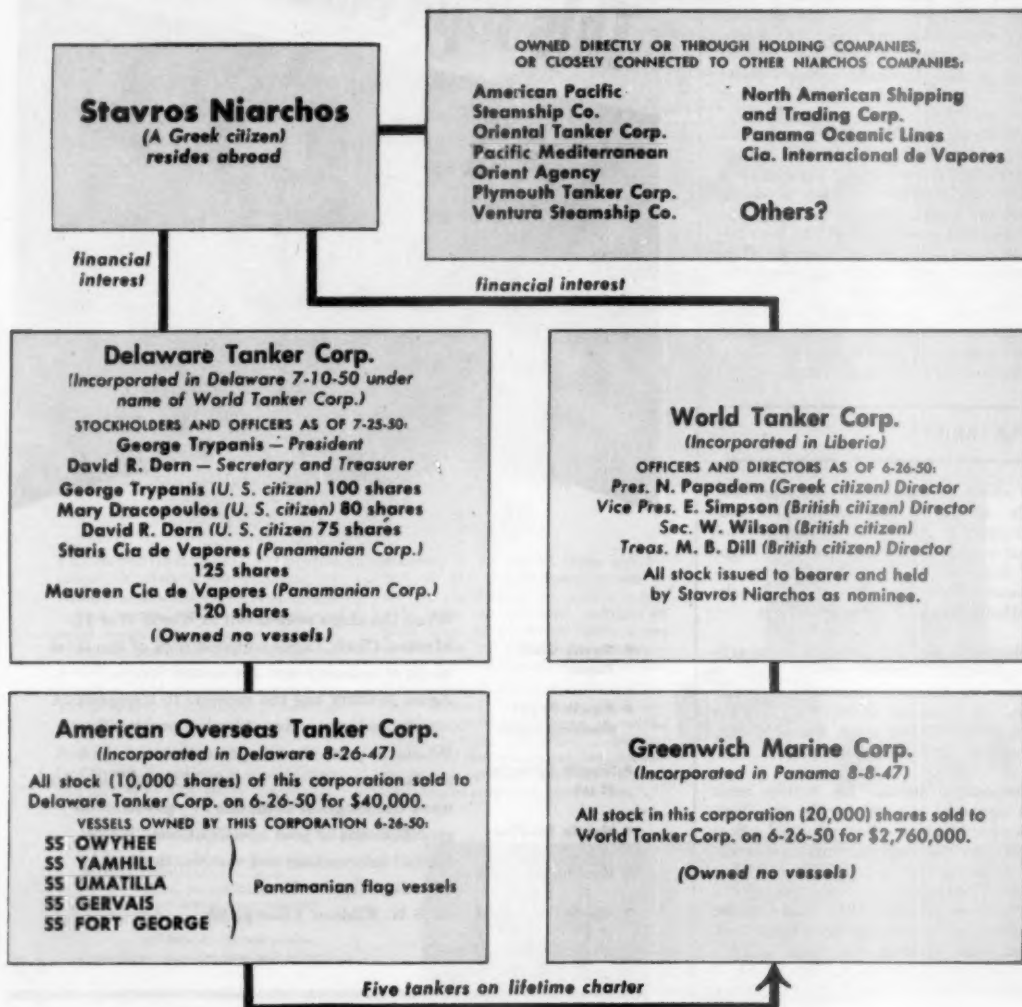


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TRANSPORTATION

Ships That Launched a Millionaire



From Greece

Helen of Troy's face launched a thousand Greek ships. But consider the elusive face of Stavros S. Niarchos.

Since the war, a spokesman says, Niarchos has personally launched more ships than any other person or country. "And why not?" said one wag. "Niarchos has more money than some countries."

• **One-Man Nation**—His lawyer recently told a Senate committee that only the U.S., Britain, Norway, and Panama have more tanker tonnage than Niarchos. If Niarchos set up his own country with his own flag, he would probably edge out Panama, since most of his vessels now carry the Panamanian flag—for good reasons.

Afloat and abuilding, Niarchos admittedly owns or controls 45 tankers with total tonnage of 1.2-million tons. And it is said that he or his many operating and holding companies have at least a piece of many more ships, tankers and others. Yet practically nothing is known about Niarchos the man.

When the Senate began investigating the disposal of war-surplus tankers a few weeks ago, there was a lot of talk about the Casey group, Edward Stettinius, Adm. Halsey, Newbold Morris, mysterious Chinese, "Oilboat Olga" Konow, and the University of Chicago. There was practically no mention in the press of Stavros Niarchos. But he wound up with five of the eight tankers being probed at the hearings.

• **Maybe**—Niarchos was apparently born somewhere in Greece, and everybody agrees that he is a Greek citizen. His lawyer gives his age as 44, but one of his business associates thinks he is a couple of years younger.

A London paper reported that he lives in New York, but his connections here say he lives in London and only appears here occasionally on business. The Manhattan telephone directory lists a Mrs. Stavros Niarchos, but no Mr.

Nobody is sure what he looks like either. Pictures of him don't seem to exist. At a recent launching of one of his big tankers in Britain, at which he was present, there were plenty of photographs taken of Earl and Countess Mountbatten, who did the christening, but Niarchos managed to stay clear of all the cameras. One of his employees remarked, "He doesn't need publicity, and he doesn't like it."

• **Spreading**—Greek interest in shipping goes back to before the Trojan



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War. Ever since then, Greeks have been big shipping operators, at first only in the Mediterranean, but in the past 100 years all over the world. One reason for this recent expansion has been the fact that Greece itself became so poor that there wasn't much opportunity for investment within the country. Besides that, Greece is practically all coastline and islands, so nearly everybody had some kind of fishing or inter-island boat to start with. Every island or coast town became the center for one-family or clan shipping operation.

Many of these Greek families got into ocean trade by buying ancient ships, often British, that were ready for the scrap heap. Some of these old jobs were operated into World War II. By that time many of the Greek owners had moved to London to be close to the center of world trade. When the war started, most of these old ships were operated for the Allies, and most of them were sunk, giving their owners insurance money to buy or build new ones. It didn't take much to sink them, and some wags venture that, when they didn't get torpedoed, their owners kicked holes in their bottoms.

• **Helping Dad**—It is difficult to say where Niarchos fits into this picture. The only story extant of his entrance into the shipping business says it was an outgrowth of his father's Greek flour mill. It seems that a shipping strike cut off grain and supplies for the mill, so Niarchos decided he would get daddy off the hook by starting his own line. Niarchos' employees here say they don't know for sure if that's the real story. They don't even know if his father owned a mill.

During the last war, most of Niarchos' ships were operated by the British and U.S. governments. Niarchos himself served as an officer in the Greek navy aboard a U.S.-owned destroyer operated for the British. While his warship was plying the Atlantic, half of his merchant fleet was being sunk. The insurance money was expansion capital.

Some Greek ship owners with good hulls figured out a safer way to operate their ships in wartime. They got Swiss charters and sailed them with big Swiss flags painted on their sides and with all their lights on to warn off German submarines.

When the war ended, the shipping business, including tankers, didn't look so good. But Niarchos figured world demand for petroleum would jump, so, according to one of his spokesmen, he was bullish in tankers when the rest of the trade was staying out. That's how he managed to build up his giant tanker empire in the past six years.

• **Divide and Prosper**—The shipping business is by its nature, peripatetic. The only property that matters is the

ship, and it is only of value if it keeps moving. Headquarters for the operation can be anywhere, and it's smart business to break up the business and put individual pieces of it where they will do the most good.

This seems to be the thinking behind Niarchos' vast, hydra-like, international setup. He put the taxpaying end of it where there are no taxes. The cargo-bookings branches are located where the shippers are. Other agents are placed near the shipyards that build his ships. Some of his ships are registered in certain countries out of necessity, so he has branches there. He keeps an office in Paris, too, though there's not much business there.

• **Stateless**—Beyond these, there may be other reasons why he has spread out so far. Greek ship-owning families and clans have done a lot of moving in recent years—almost to the point where they have lost their national identity. They left Greece years ago to come to London. When the war came, they came to the U.S. or wherever else they could do business. A Niarchos associate recently said, "When Stavros looked west from England, he didn't see just our country. He saw a whole hemisphere—including Panama. None of it was Greece or home. It was all a good place to do business." That may be why it was easy for him to build and spread and commute between continents.

Niarchos built and bought ships wherever he could, especially in the U.S. and Britain. Or at least his com-

panies, agents, and associates did. Last fall, what may be the biggest tanker ever built was launched in Britain for North American Shipping & Trading Co. (London), Ltd., acting as agent for Niarchos' World Tanker Corp. of Liberia. Its sister ship, the World Concord, came down the ways last month.

• **Biggest of All**—These two are monsters, but they are small compared to four more that have been ordered by Niarchos interests. North American of London has placed orders for two 44,000-ton tankers to be built in Britain. The word is that they are for Niarchos. He or one of his companies owns a piece of the London company. However, a North American spokesman said the company is acting only as agent for the owners of the proposed tankers. The spokesman said North American doesn't even know who its clients are.

Meanwhile, North American of New York, another Niarchos outfit, has placed an order for two 45,000-ton tankers with Bethlehem Steel Corp. These ships will be built for Niarchos' World Tanker Corp. They will cost around \$10-million apiece and will be the biggest commercial ships ever built in the U.S., outside of the new superliner United States.

Metropolitan Life Insurance Co. lent the money to Niarchos, and industry talk has it that he has already got characters for them that will pay off the principal and interest and give him the ships free and clear in 10 years or less. This has become the standard method of financing tankers. In some cases, says a Niarchos spokesman, he has been able actually to borrow more money on a future ship charter than the cost of building the ship, so he winds up with capital to lay the keel of still another tanker.

• **Viva Panama**—Offhand, it looks as though anybody with connections and a fat line of credit could get rich from tankers. Nobody can say how rich Niarchos is, but it's a cinch that he has made a fortune from his recent operations. He and anybody else in the business might have made out fine anyway, but they could never have done nearly so well without a device called Panama.

Officially, Panama is a Central American republic, but for purposes of the shipping business it is strictly a device. Niarchos has made good use of Panamanian advantages. Several of his companies are incorporated there for tax purposes.

To a ship owner, Panama means no income taxes, no currency controls, and low operating costs. Crews signed on Panamanian ships get paid about half of what American crews get. Most ship operators claim that an unsubsidized American ship can't possibly compete with a Panamanian or any other flag ship in normal times. Many have



Ticketeer Keeps Track

Railroad-ticket sellers are relieved of inventory chore with new ticket selling machine. It prints each ticket on the spot, keeps running sales total. New Haven R.R. is giving robot a tryout.



A fire-rescue worker, testing the Navy's latest "hot suit," walks through an inferno of more than 2000° F.

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Armco gives steel a "hot suit" to fight heat

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"We believe that KLIXON Protectors contribute much to prevent motor burnouts."

The KLIXON Protector illustrated is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer-preference, reduced service calls and minimized repairs and replacements, it will pay you well to ask for equipment with KLIXON Protectors.

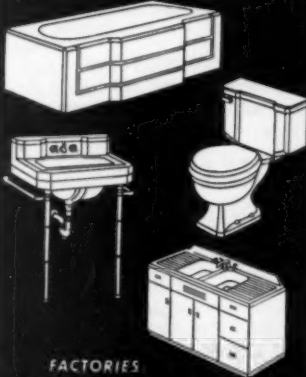


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"... an escape from high American operating costs and income taxes..."

TANKER FLEET starts on p. 128

switched their ship registry to Panama (more recently to Liberia and Honduras, when it looked as if shoreside transport unions would boycott Panamanian ships).

• **Neutrality**—Panamanian registry was to a large extent created by U.S. government pressure at the beginning of the last war. American ships were prohibited from entering war zones by the Neutrality Act. So Panama was elected as the place for American ships to register so that they could get around the law and carry supplies to Europe.

Since then, it has provided an escape from high American operating costs and income taxes, to the chagrin of the Treasury and U.S. maritime unions, among others. Recently, too, the government has been concerned about the prospect of losing the availability of these ships in time of war.

A Panamanian consular official recently remarked, "Why should we tax income from shipping operations? The ships almost never come into our ports. We don't require anything like that." They don't require much of anything outside of payment of the \$1-a-ton registry fee plus the 10¢-a-ton annual tax.

• **A Cinch**—It's simple to set up shop in Panama. If you want to register a ship there, all you need is some Panamanian citizen official to hold your power of attorney. And the consular official says there are plenty of lawyers in Panama City who make their living by holding powers of attorney. Or if you want to establish a company there, it's just as easy. The Casey group, which appeared before the Senate committee, for instance, found that you can buy what is known as a stand-by corporation for as little as \$600. Greenwich Marine Corp. of Panama, a key company in the Casey deal, was bought for that price.

• **Casey Operation**—The Casey group bought tankers from the government in 1947. Three were immediately sold to a Chinese chain of companies. The other five were even more attractive. The Maritime Commission had permitted the group to buy them and switch their registry to Panama. It was the last time such a deal was permitted. In 1950 Niarchos was approached as a possible buyer of the 85,000 tons of ships. The deal was closed for \$2.8-million plus \$90,000 finders' fees.

Now the government is upset about the deal. The Senate Investigating Subcommittee isn't sure that, under the maritime laws and under the terms

of the contract that originally gave the ships to the Casey group, the ships or the stock in the company that owned them could be sold to a noncitizen or to a company that was financed by one, namely Niarchos.

The deal under which Niarchos got the tankers was anything but simple. The Casey group had set them up like this: Bare title to the ships was in the hands of American Overseas Tanker Corp. AOTC in turn chartered them for nothing to Greenwich Marine Corp. of Panama. Greenwich then could subcharter them and not pay taxes on its income. Then came Niarchos.

His World Tankers of Liberia paid \$2,760,000 for all stock of Greenwich Marine, which held charters to the vessels for the rest of their economic life. Then, even though Niarchos' lawyer was certain that Niarchos had the right to buy AOTC directly, he didn't want to take any chances, so he set up Delaware Tanker Corp., as an intermediary to hold AOTC stock, all of which it bought for \$40,000.

Two of Niarchos' Panamanian concerns bought 49% of Delaware stock, and a third one lent three American citizens the money to buy the remaining 51%. These three people were Niarchos' sister and two directors of North American Shipping & Trading Co., of which he owns a big piece.

One of these North American people is an ex-employee of the Maritime Commission.

When Niarchos lent these people the money, they gave his company an option to buy their stock at any time before they paid off the loans. (They did pay off the loans later with money they received from the sale of stock in Plymouth Tanker Corp.—linked to Niarchos—to North American.)

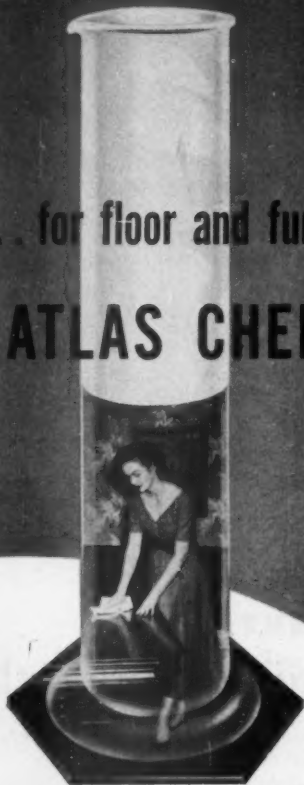
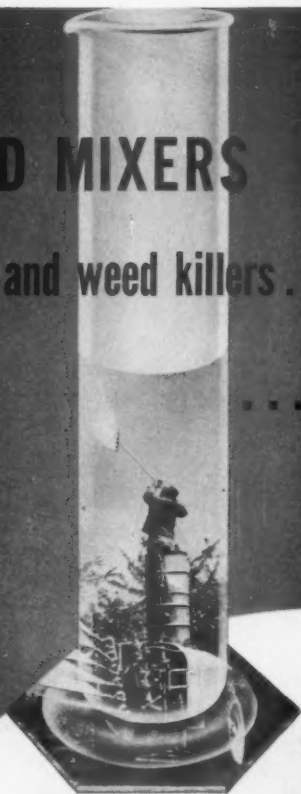
• **Matter of Fact**—Senate probes figure that, at the bottom of this complex corporate structure, Niarchos in fact owns the ships in question. His lawyer says that the law merely prohibits him from having bought the ships, not the stock, and even then he says it applies only in wartime. He calls Delaware Tanker "an insurance policy."

The Niarchos case is now in the hands of the Justice Dept., but, even if it goes to trial and the court decides that, despite the legal gimmicks, Niarchos really does own the ships, then the government will have a claim only against them, not against Niarchos. In that case, unless the ships appeared in American ports, the judgment would be strictly academic. Anyway, Niarchos' lawyer doesn't think there's any doubt about the legality of the deal. And, if Niarchos lost these five wartime tankers, it would barely dent the fleet that ranks between Panama and France in world petroleum hauling.

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From Texas—the vice president of a bank writes: "We are quite proud of our Group plan with your fine company, which has now been in effect some 17 years. Our dealings with your company have been most satisfactory and all claims paid promptly."

From Illinois—the assistant treasurer of an electronics firm writes: "Benefits paid to the first of this year amounted to more than \$217,000. We take this opportunity to congratulate The Travelers on the prompt, efficient and co-operative manner in which you handled all our claims."

From Massachusetts—the personnel manager of a manufacturer of steam-generating equipment writes: "I thought you'd like to know that the efficiency of your claim department makes a definite impression on our employees."

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FORKLIFT TRUCKS and a junior drawbridge load barges fast. The truck in the barge lifts cargo off the bridge and stows it. Trade name for bridge is a dock plate.



KEY GIMMICK is the dock plate, shown at left pulled clear to allow the laden barge to sail. At right, shoreside truck puts cargo on the drawbridge.

"Drawbridge" Loads a Barge

Standard method of loading dockside cargo onto barges is by means of a crane. Once aboard, freight has to be manhandled into stowage position. The new method illustrated above very nearly doubles efficiency.

Shore-to-ship link is a sort of hinged steel drawbridge, called a dock plate in the trade. Pallets carrying cargo are deposited on the plate by a forklift

truck on the dock. Then another truck, in the barge, lifts the pallet off the plate and stows it as desired. When the barge is so full that there is no more maneuvering room, a crane hoists the truck ashore and fills in the remaining gap by the old method.

Trucks and dock plate can do in two hours a job that used to take three and a half.



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GARLAND T. ALLISON, engineer on St. Louis-Newburg (Mo.) run, waits while his train comes in from previous leg of the journey.



LAYOVER in Newburg hotel ends before dawn when call boy wakes him.



BREAKFAST can be had at hotel or nearby restaurant. Allison runs a diesel, but he still wears old-time cloth around his neck to catch stray cinders.



HE CHECKS watches with conductor. His run begins at St. Louis in early evening.



ON THE LINE, he looks back down line of cars rounding a curve. He's checking for hot boxes—burned-out wheel bearings. Fireman makes same check when curves are his way.

The Life of a Railroad Engineer



RETURN RUN starts at 5:45 in the morning; Allison and his fireman get ready to take eastbound train back to St. Louis. Since it's a diesel, fireman can wear white shirt.

For 10 years relations between U.S. railroads and the railroad workers have been going from bad to worse. Nominal seizure by the government in August, 1950, to head off a strike complicated the problem instead of solving it. This week the whole situation was so tied up that the government could devise no way to end its unwilling ownership, let alone restore peace to the rails.

• **The Rules**—One thing that makes the rail labor problem almost hopelessly intricate is the elaborate system of working rules, customs, and traditions that have been building up for years. Most of these rules date back to a time long before the present deadlock in labor relations. To the railroad worker, they are a vital part of his job—more important in many ways than the wage rate itself. To management, they are equally important as a cost factor.

For this reason, the rules and customs of railroading are a vital part of the whole management-labor dispute. The wage issue might be settled by hard bargaining. But to work out any real agreement on the complicated working rules calls for a degree of

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\$2-MILLION worth of train behind him, Allison pulls out of Newburg with his right hand on brake control. Train is his for 2½ hours.

patience and cooperation that hasn't been present in railroad labor relations for years.

• **Typical Run**—To see where some of the rules come in and how much difference they make in a railroad man's job, you have to follow a typical man through his job. Take, for example, the railroad engineer, the king pin of railroad labor. Take a look at the diary of an engineman working a more or less typical run.

• **Long Ladder**—Garland T. Allison joined up with St. Louis-San Francisco Railway Co. in 1906. He started out as a cub fireman, worked odd hours, began learning his way around a locomotive. He went to classes where he was taught about air brakes, oil injectors, signal systems. In his spare time, he memorized a book of complex operating rules. Every now and then he was allowed to run a train under the eye of its engineer.

In 1918, after Allison had passed his examinations, death and retirement of his seniors finally put him at the controls of an engine. Since then, he has put in most of his time on the St. Louis-Newburg (Mo.) run.

• **Day's Work**—Allison's working hours (pictures, page 136) are typical. He reports at the St. Louis terminal in the evening about half an hour before he is due to pull out, checks the bulletin board for storm warnings, track conditions, and the like. Then he takes the train to Newburg—a run of about two and one-half hours.

Newburg is not primarily a passenger station, but a relay point. In the old days of railroading, relay points had to be set up every 100 miles or so because a locomotive couldn't run much farther without being serviced. The trains were slow, and the 100-mile leg took as much as five hours to cover; consequently, the distance between two relay points was a day's work for the train crew.

When modern locomotives came on the scene, they didn't need the 100-mile service stops, for a diesel engine can pull a train from New York to Chicago without any servicing at all. But the tradition of changing crews at the relay points stayed on. That's why, after only two and one-half hours at the controls, Allison turns his train over to another engineer at Newburg.

• **Back Home**—After sleeping over at Newburg, Allison gets up at 4:30 the next morning and takes an eastbound train back to St. Louis. If anything goes wrong on the trip, he makes out a report. Aside from that, his stint is finished. He has all the rest of that day to himself, sleeps at home that night, and has all the next day off until he reports for another round trip in the evening.

Pay is figured on a combination of hours, type of engine, type of run. The smaller the engine and the shorter the run, the lower the pay. Seniority decides who gets the coveted jobs. Nationwide average pay of locomotive engineers is \$350 to \$450 a month.

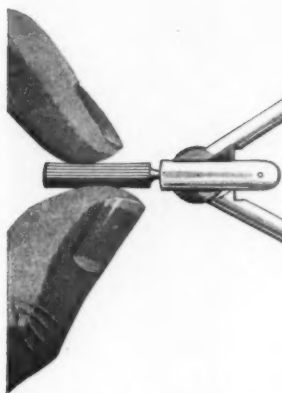
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that mean finer performance at lower cost

VALVE-IN-HEAD ENGINE: Power plus economy in the 105-h.p. Loadmaster or the 92-h.p. Thriftmaster.

BLUE-FLAME COMBUSTION: High efficiency combustion chamber squeezes all available power from fuel.

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"TWIN-ACTION" HEAVY-DUTY REAR BRAKES: Two cylinders in each brake gives safer, more positive braking.

"TORQUE-ACTION" LIGHT-DUTY BRAKES: Make full use of truck momentum for greater stopping power.

BONDED BRAKE LININGS: Rivetless linings on light- and medium-duty models nearly double lining life.

BATTLESHIP CAB CONSTRUCTION: Each cab is a double walled, all-welded steel unit of great strength.

FLEXI-MOUNTED CAB: Minimizes vibration and driver fatigue.

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UNIT-DESIGNED BODIES: Floors, tops, sides built as separate matching units for greater strength and safety. Widest color choice at no extra cost.



TODAY, when every business is fighting a battle against rising cost and a sky high break-even point, the proved ability of Chevrolet trucks to whittle down trucking costs is something worth considering.

Chevrolet trucks cost less to buy: They list for less than other trucks with comparable specifications.

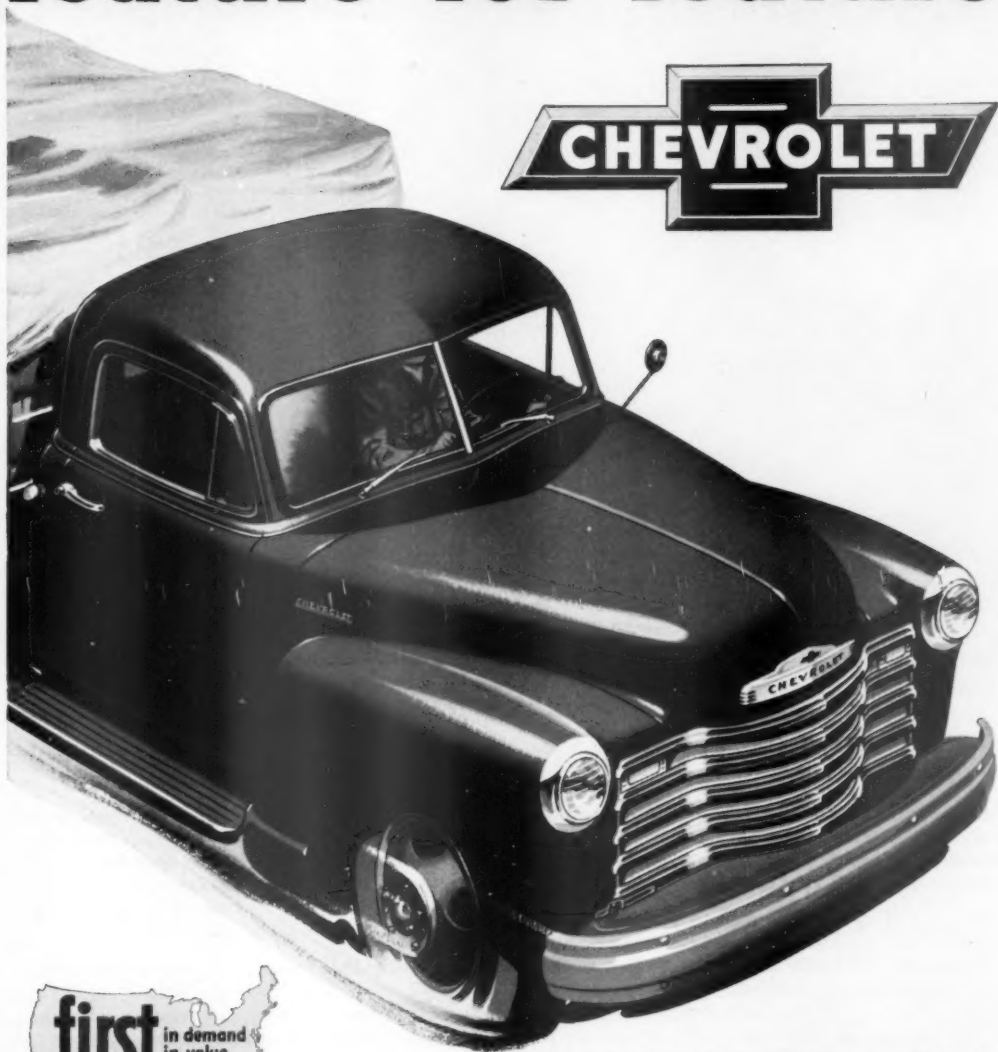
Chevrolet trucks work for rock bottom "wages": These 20 great truck features pay off on the job with lower maintenance and operating expenses.

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See the 10-year leader with the 20 Great Features at your Chevrolet Dealer's. . . Chevrolet Division of General Motors, Detroit 2, Michigan.

(Continuation of standard equipment and trim illustrated is dependent on availability of material.)

because they're **finer ...**
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research has led to significant improvements in the quality of metallurgical coke, which favorably affects iron and steel quality. Thus, from the ground up—research is charting the course of progress at J&L, pointing out new and better ways to make steel, and to make it more useful to industry.

Behind the J&L trade mark, and behind every J&L steel product is research—creative, imaginative and continuous research—research with the single objective of making better steel.



JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH 30, PA.

NEW PRODUCTS



Lightweight Oil Drums ...



... Built Up From Fiber

Steel drums used for shipping petroleum and other liquids have to be returned for re-use and often need reconditioning between trips. Keeping track of them involves bookkeeping, too. A West Coast company has now developed a cheaper, lighter substitute for 5-gal. and 15-gal. steel drums. (It is working on a 30-gal. and 55-gal. drum.) They are single trippers—thus eliminate expense of reconditioning and returning.

The drum is built up of several plies of kraft linerboard laminated to aluminum foil. Top and bottom are sheet steel. Eight plies of the laminate, with adhesive between, give the 15-gal. container enough rigidity to stand up, filled with oil, under stacking loads of 3,000 lb. The drum weighs 7½ lb., as

Engineered WAYS TO BETTER BUSINESS



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- (3) RISING OPERATING COSTS!

Immediate and practical relief is offered by G/W Techniplan, the original modular office equipment.

MORE WORK STATIONS in a given floor area—increased individual worker efficiency—fewer motions, faster work—these are the direct functional advantages of Techniplan equipment.

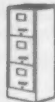
TECHNIPLAN allows you to "mold" your office to fit your needs, to provide expansion, or to meet changing needs. Standard interchangeable-interlocking units form any desired arrangement of work stations, provide any desired combination of work facilities—fitted to the individual job. Rearrange Techniplan at will—without special tools or skill.

ALTHOUGH highly distinguished in appearance Techniplan is moderate in cost. Its simple, tasteful design, streamlined and modern, is expressed in warm, rich grains of natural walnut—displaying superb craftsmanship throughout.

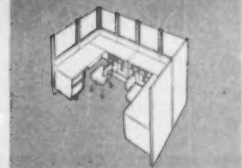
GET THE FACTS—and Techniplan dealers' names; use the convenient check list request Techniplan and 4000 other ways to better business originate with Globe-Wernicke; are sold and serviced by dependable G/W dealers, listed in classified 'phone books under "Office Equipment."



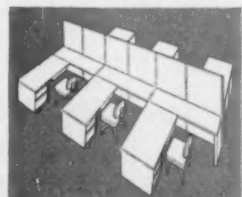
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Office Equipment, Systems,
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Cincinnati 12, Ohio



Two L-units form compact private office with ample space for two workers, using standard partitions.



Standard partitions, all wood or wood and glass, provide privacy and sound barrier.

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They're reaching a NEW production record!

Grinding production moved up when the right grinding wheels moved in. They're Simonds Abrasive Company grinding wheels . . . part of a complete line accurately specified to enable you to get the right wheels for all your grinding jobs . . . proven production tools manufactured under complete quality control by Simonds Abrasive Company, a major producer of grinding wheels for 60 years. Let a Simonds engineer show you where they fit into your production picture. Write.



EXECUTIVES — Simonds Abrasive Company's complete line has everything you need . . . grinding wheels, mounted wheels and points, segments and abrasive grain.



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Two Fast Daily LCL Merchandise Cars

OF A FLEET OPERATED BY

The MINNEAPOLIS & ST. LOUIS Railway

1. Twin Cities to St. Louis: Route M. & St. L.—Wabash
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Between points in the Great Midwest and cities of the South and Southeast, Less-Carload Freight moves faster over the M. & St. L. Railway.

Typical examples of Thru Cars in Daily LCL Service via the M. & St. L., saving Hours and even Days of Time in Transit are those, South and Northbound, between the Twin Cities of Minneapolis-St. Paul, Minn., and St. Louis, Mo.

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against 12 lb. for steel. One Californian oil company has been using the drums experimentally for a year and reports that the fiber-foil drums stand up as well as steel.

• Source: Pacific Steel Fiber Drums, Inc., 1025 Westminster Ave., Alhambra, Calif.



Packaging Time-Saver

In most packaging operations, a lot of time is likely to go into the job of nailing crates or pallets together. Diehl's Hydronic nailing machine should cut down a lot of this construction time.

The nailer has an electronic pattern selector and a hydraulic nailing operation. On the 72-in. model, for example, switches on the electronic panel can select up to 24 nails in 10 patterns, to be used in any combination. With one stroke, the 24 nails are driven in any of the 10 pattern selections—and at 60 strokes per minute.

Any type nail can be used with the machine—from 2d to 16d—with four different size nails used simultaneously. Diehl plans to make open and closed back models in four sizes: 40 in., 48 in., 60 in., and 72 in.

• Source: G. M. Diehl Machine Works, Inc., 1106 Collins Ave., Wabash, Ind.

• Price: \$8,100 for 42-in. model, \$13,500 for 72-in. model.

Plastic Foam

A new plastic foam, developed from Vinylite, is a cinch to make, is flexible, and resists flame, moisture, acids, tearing, and aging. Textiles and films can be laminated easily to the foam, making thick, soft seat cushions and furniture upholstery. The foam can be made thick or thin, sliced as thin as $\frac{1}{8}$ of an inch.

The foam is made by expanding a special compound developed by the

Elastomer Chemical Corp., with research by Bakelite Co. The compound is poured into a pressure cylinder. A gas, under 400-lb. pressure, is forced in, and the cylinder is agitated, giving you a foam that looks like whipped cream. The foam can be poured into open molds and then cured in an ordinary oven. Its density can be varied from 12 to 18 lb. per cu. ft. And it can be made in any color. Because of the simplicity of production, the foam will sell for less than foam rubber.

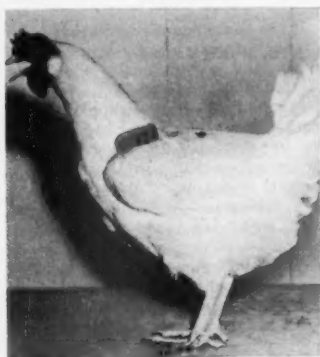
• Source: Elastomer Chemical Corp., Nutley, N. J.

NEW PRODUCTS BRIEFS

Fractional horsepower motors, as redesigned by General Electric, are lighter and smaller than other FHP motors, says GE. Its Form G motors have a new nylon insulation system and can be operated in any position. Possible uses range from vacuum cleaners to drill presses.

A flexible tape with a heating element in it can be used to heat cylinders and pipes. From Electrofilm Corp., 7116 Laurel Canyon Blvd., N. Hollywood, Calif., the tape elements dissipate 2.5 watts per sq. in.

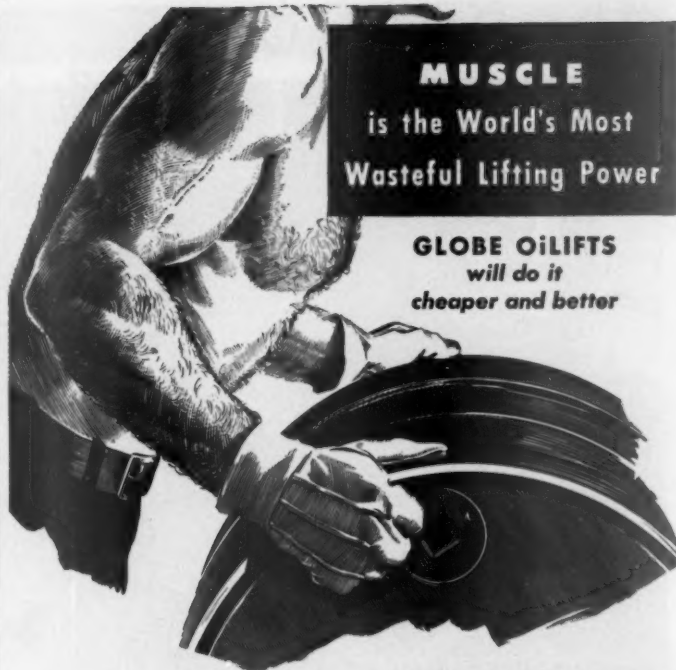
Slip-proof bathtubs that also kill athlete's foot are what you are supposed to get by spraying Safe-T-Bath Brand on your tubs. Safe-T-Brand Sales Co., Inc., P. O. Box 672, Evanston, Ill., says its product has a flowery fragrance to add to its charm.



Dogtag for Fast Count

Counting your chickens, especially for trapping, should be easy with this easily seen wing badge made by Dryden Poultry Breeding Farm, Modesto, Calif. The colored tenite plastic badge clamps around the chicken's wing.

BUSINESS WEEK • Mar. 29, 1952



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is the World's Most
Wasteful Lifting Power

GLOBE OILIFTS
will do it
cheaper and better

WHAT are the lifting jobs in your plant—heavy, light or medium? Chances are, Globe OilIFTS can save you money.

A Globe OilIFT can work three shifts a day—with never a minute out for rest—no time-and-a-half for overtime. Human muscle is the world's most wasteful lifting power. Globe OilIFT is the cheapest and best. Let us prove that to your satisfaction.

Write today for our Bulletin BW-301 on modern lifting. It is full of practical information on money-saving, production increasing methods of lifting, loading and materials handling.



Globe Platform Loading Lift. Simple to install. Recessed platform is level with floor when not in use. Capacity to 80,000 lbs.



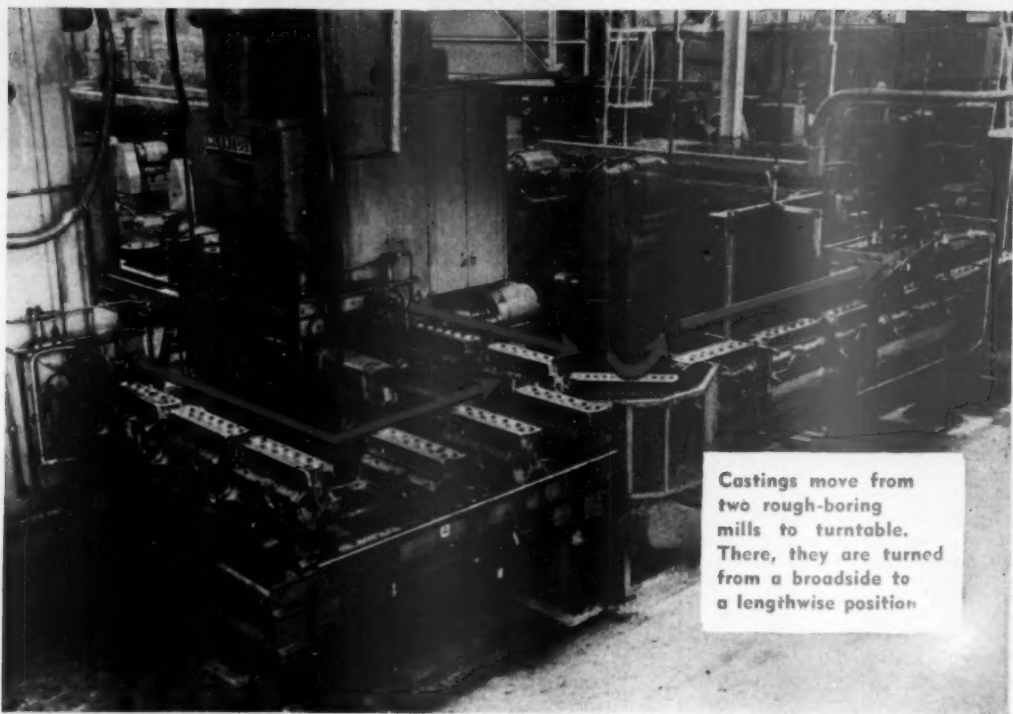
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LIFTS, ELEVATORS AND
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GLOBE HOIST COMPANY, 1000 E. Mermaid Lane, Philadelphia 18, Pa.
(Factories at Des Moines, Iowa and Philadelphia, Pa.)

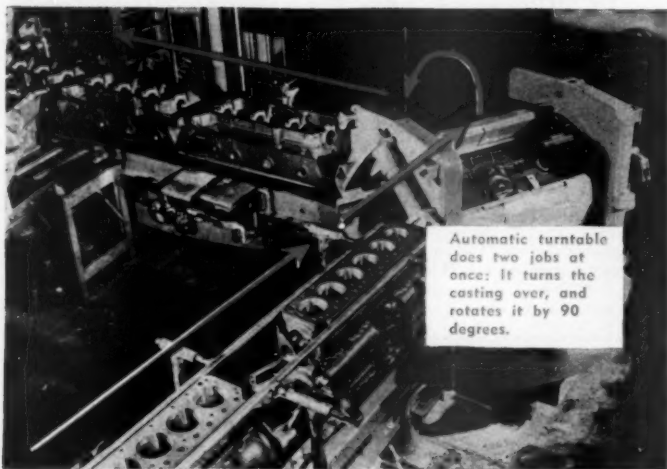
PRODUCTION



Castings move from two rough-boring mills to turntable. There, they are turned from a broadside to a lengthwise position

FORD started modernizing some of its machines in 1947 to increase their output. Bit by bit, the project is leading to . . .

Automation: A Factory Runs Itself



Automatic turntable does two jobs at once: It turns the casting over, and rotates it by 90 degrees.

MACHINES in some of Ford's production lines now run at double their old capacity: Automatic feeding and unloading is much faster than normal manual methods.

If you could pour raw materials down a funnel at one end of a factory, flip a switch, and take finished products out of the other end, you'd be realizing the engineer's dream—complete automation. That stage hasn't been reached yet. But developments have come along far enough so that it isn't quite so fantastic as it sounds.

• **A Difference**—Automation is a lot easier with some products than others. A fluid like oil or gasoline can be moved through the various processing steps by means of pipelines. The whole chain of operations can be controlled fairly easily by instruments, with little help from human operators. Oil refineries, for that reason, have been able to come closer to complete automation than most other types of factory (BW—Jul. 21 '51, p. 56).

But products made up of individual units—radios, automobiles, and the like—present a different problem. You can't pour an automobile together; every bolt belongs in a specific place, facing in a

specific direction. Automation of that kind of product requires specialized handling devices, complex conveyor systems.

• **Ford Plant**—The problem will be hard to solve, but Ford Motor Co. has spent five years proving it isn't impossible.

The company's Cleveland engine plant and its pressed-steel plant (body parts) at Buffalo, N. Y., have been almost completely automated. In the Rouge plant at Dearborn, Mich.—Ford's main plant—11 production lines now have the automatic treatment.

Each production line in Ford's system is an automatic unit, from start to finish. The individual machines are hooked together electrically. Parts are unloaded from one machine, carried to the next, and fed into it—all automatically.

• **The Start**—The idea of such near-complete automation was still in the dream stage in the automotive industry when D. S. Harder, Ford's vice-president of manufacturing, started to push it in 1947. His original aim was merely to make general improvements in his machines to increase their output. Before he knew it, though, he was getting into automation. And the automation has paid off:

Today the production line that turns out cylinder blocks at Ford's Cleveland plant has a rated output capacity double that of any other in the industry. Ford's machine tools weren't any better than anyone else's before they were automated; the difference lies largely in the fact that an automatic setup can feed and unload the machines twice as fast as a manual operation.

• **Preliminary Study**—Before Ford gives any production line over to automation, its engineers mull over two questions:

• Is the part or unit adaptable to automation?

• Will the savings of automation over normal manual operations be enough to justify the expense of installation?

If the answer to both these questions is yes, the job is turned over to a machine contractor. There's usually a little trial-and-error work to be done, for most machine tools haven't been designed with automation in mind. Loading and unloading stations for the human operators have to be removed, automatic machinery put in their place.

• **Time**—Automation cuts down two of the three time elements of production: It cuts feeding time and unloading time. The middle element—actual time taken in shaping or building the part—is up to the machine itself.

Most manufacturers have long recog-

We make money on errors *that don't happen!*



You need only examine the cost records of most plants to see how much rosier their production figures would be if scrap due to dimensional inaccuracies were eliminated — such errors are costly. The only errors that make money for a plant are those which *don't happen!*

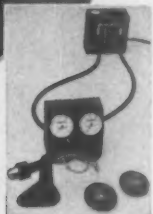
Federal Indicating Gages show the worker at a glance if pieces begin to vary in size and permit him to make the necessary adjustments to correct his machine before serious errors occur and his work pieces become "rejects".

Stop losses due to dimensional errors — use Federal Indicating Gages to build your profits. We offer all kinds of dimensional indicating gages — air, mechanical, electronic, electrical — and, with experience in designing over 25,000 different gages for single or multiple dimensions, can recommend the proper gages to most effectively do your work. Fill in and return the coupon today. Federal Products Corporation, Providence 1, Rhode Island.



Largest manufacturer devoted exclusively to designing and manufacturing all types of Dimensional Indicating Gages

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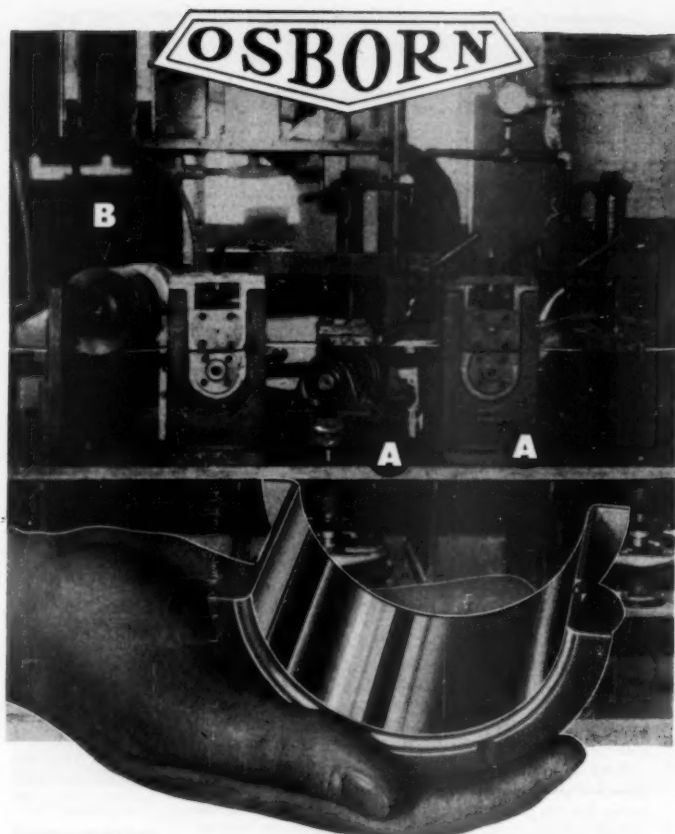
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Please send me Catalog 51, describing the complete line of Federal Dimension-Control Gages. I am interested in the following:

- ☐ Dimensional Dial Indicators
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Will "automatic" ideas like these cut your costs?

THIS machine does two jobs at one time . . . does them thoroughly by power brushing . . . at the push of a button.

Perhaps a similar brushing method can help cut *your* costs, boost *your* production and improve the quality of *your* products.

The machine developed with the help of the **Osborn Brushing Analyst** cleans steel-backed, babbitt-lined strip for production of automotive sleeve bearings. With the strip traveling continuously, Osborn Master® Wheel Brushes (A) remove all dirt, rust and metal particles from the steel surface. Osborn Monarch® Sections (B) then thoroughly clean the babbitt side.

This is typical of the cooperation which your **Osborn Brushing Analyst** can give *you* to solve problems of product cleaning, burr removal, roughing, polishing and finishing. For help, call or write *The Osborn Manufacturing Company, Dept. 649, 5401 Hamilton Avenue, Cleveland 14, Ohio.*

Osborn Brushes

OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES

nized the importance of these three elements. They have gone a long way toward reducing the middle element—actual shaping time—but feeding and unloading operations have lagged far behind. As a result, many machines have to work a good bit under capacity—simply because they can't be handled quickly enough by manual methods.

Biggest advancement so far in cutting handling time, outside of Ford's automation system, has been the transfer machine.

In this, two or more machine tools are combined into a single unit. Built-in control devices move the pieces through the individual steps. This machine's virtue is that it carries the parts from step to step. Experts say, however, that a machine will have to do more than that before it measures up to their idea of automation.

• **Ford's System**—Ford agrees. The company thinks the conveyers among a group of machines must be more than just straight carrying devices. It has worked out gadgets that duplicate much of the fairly intricate manual work in its production lines.

Each line is masterminded by electrical controls. When a machine is ready to work on a new part, a message goes down the line to the preceding machine. This machine promptly sends the new part on its way.

The parts travel on a fancy kind of conveyer, called a shuttle. The shuttle not only carries the parts; it turns them so that they enter the machine lengthwise or broadside—according to the requirements of the particular machine. If a part comes out of one machine lengthwise and has to be in a different position for the next, the switch is handled by a turntable. Automatic turntables can turn the parts 90 degrees, 180 degrees, or upside-down. When the shuttle brings parts to a machine, an automatic device picks them up and puts them in the proper position for machining.

The automation can go even further than that. If two conveyers meet the same turntable from different directions, the operation can be time-controlled so that one conveyer has priority over the other. This prevents a pile-up of materials on the turntable.

• **Circle**—This speedup of handling has created a strong upward spiral. If you work on a system for fast feeding of machines, sooner or later the system will outstrip the machines. So you have to speed the machines up so the handling system won't be running under capacity. This is what happened at Ford.

One of Ford's critical operations in handling its castings is broaching (shaping).

As a result of the speedup in feeding and unloading, Ford was able



This valve is a PARADOX

How else would you describe the Grinnell-Saunders Diaphragm Valve? It has proved to be in a class by itself in the handling of highly *corrosive* fluids, so destructive to most valves. And at the same time it is equally popular where *edible* fluids must be kept clean, uncontaminated by valve operating mechanism or lubrication.

Important, too, is the valve's streamlined fluid passage, which eliminates clogging by slurries, sludge or pulp stock and likewise prevents trapping of suspended solids in beverages, soups or fruit juices.

Piping in today's complex manufacturing processes is an exacting science involving highly corrosive fluids, gases, compressed air, beverages, foods and suspended solids . . . in lines where corrosion, abrasion, contamination, clogging, leakage and maintenance are costly factors.

The development and adaptation of the Grinnell-Saunders Diaphragm Valve to overcome trouble in such valve installations are representative of the extent to which Grinnell goes to provide the products, facilities and engineering experience to solve any piping problem.

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Grinnell Company, Inc., Providence, Rhode Island • Coast-to-Coast Network of Branch Warehouses and Distributors

pipe and tube fittings • welding fittings • engineered pipe hangers and supports • Thermolier unit heaters • valves
Grinnell-Saunders diaphragm valves • pipe • prefabricated piping • plumbing and heating specialties • water works supplies
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Time proves the durability of **CONCRETE** construction



FOR FACTORIES and other buildings economical concrete gives long service because of its great resistance to all weathering forces.

HOMES built of sturdy, firesafe concrete provide a lifetime of comfortable, worry-free shelter, yet actually cost less per year to own.



CONCRETE ROADS have twice the life of the next most durable type commonly built. No other pavement has such *low annual cost*.



CONCRETE FARM BUILDINGS have the resistance to termites, storms, rats, decay and fire that enables them to outlast other construction.



PORTLAND CEMENT ASSOCIATION

33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete... through scientific research and engineering field work

to improve its broaching machines. Broaching speeds are now more than double what they used to be.

• **Planning**—The company now has an automation department in each of its manufacturing divisions. These divisions work with other groups that specialize in plant layout, manufacturing, purchasing.

PRODUCTION BRIEFS



Calling Dick Tracy: This little radio transmitter, built by engineers of General Electric's Electronics Laboratory, may not be so small as a wrist watch, but it's close to it. The transmitter uses a tiny transistor (right) instead of an electronic tube, making the small size possible (BW—Feb. 23 '52, p46). The broadcasting range is several hundred feet.

A radiation engineering lab is now open at Stanford Research Institute for industrial use. Companies that want to find uses for radioactivity can send samples of the stuff they want to work on to Stanford. Possible applications: testing of metal castings, sterilization of heat-sensitive foods and drugs.

Another volume has been added to the Encyclopedia of Chemical Technology. The eighth in a set, it covers subjects from ion exchange to metal plating. The publisher is Interscience Encyclopedia, Inc., 250 Fifth Ave., New York 1, N.Y.

More synthetic rubber at reduced cost is claimed for a new process developed by B. F. Goodrich Co. at its Port Neches (Tex.) plant. Goodrich uses a chemical that speeds up the processing time by 30%, shortens the production time by three to four hours.



Takes a lot to lay a carpet in the jungle

The scene is "darkest Africa".

But Africa is lightening. Man's quest for minerals, for new areas for agriculture and trade, is slashing ultra-modern, glaring-white air strips in once impenetrable jungle.

Those pavers, portable air compressors, pumps and air tools—such as you might see working a city street—are Worthington Blue Brutes going to "lay a carpet" in that hole in the jungle.

Thus, Worthington, a major producer of equipment for public works, industry

and farm, brings the fruits of American technical genius to the strange places of the world.

And illustrates, too, how the unique American talent of *diversification* helps public, employees and stockholders. For Worthington makes many things—not just construction equipment and pumps, but also engines, water works machinery, power transmission, petroleum equipment, air conditioning and refrigeration, many others.

Such diversification builds *stability* . . .

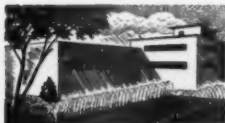
makes Worthington, 112 years old, a strong link in the far-flung chain of American business.

Worthington Pump and Machinery Corporation, Harrison, New Jersey.

WORTHINGTON

The Sign of Value
Around the World

1.14



Good Water and Sanitation—engines
pumps • water treatment • comminators
air compressors • air tools



Lower-Cost Manufacturing—pumps
compressors • steam turbines • motors
power transmission • air conditioning



Petroleum Products—compressors
engines • pumps • chilling equipment
refrigeration • decoking systems



More Abundant Food—compressors
fertilizer mixers • air conditioning
refrigeration • pumps



TROUBLE SPOT on rolling stock is the journal bearing. National Motor Bearing Co. has an oil seal that is . . .

A Hot Cure for Railroad Hot Boxes

A railroader hates a hot box the way a motorist hates a blowout, and for much the same reason. At best, a hot box—which is the overheating of the journal bearings at the end of a car axle—means a delay. At worst, it means a derailment, a wreck.

Yet railroads have been enduring hot boxes almost since the Tom Thumb first raced a stagecoach. Essentially, the problem is to keep dirt and water out of the lubricated journal boxes and to keep the lubricant in.

It's not an easy problem to solve, and railroaders have been hardened by repeated failure of gadgets that were hailed as cure-alls. Lloyd A. Johnson's National Motor Bearing Co., Inc. (cover) of Redwood City, Calif., is convinced by two years of field tests that it has the answer in a new oil seal.

• **Something on Wheels**—To understand the function of the oil seal, you

need to know how railroad car wheels and axles are assembled.

Railroad axles turn with the wheel; each end of the axle is machined where it fits into the housing. The machined end of the axle is called the journal. It bears the full weight of the car, with the help of bearings. Two kinds of bearings are in railroad use: friction, or sleeve-type, bearings on most freight cars; roller bearings on most passenger cars and some freight cars. NMB's field-tested oil seal is for roller bearings.

Roller bearings are mounted in a collar-like housing fitted around the journal. Each bearing turns on its own axis, and the whole train of bearings rolls around the journal, dipping into a pool of oil or grease at the bottom of the journal box each time they make a revolution.

If the bearing doesn't get enough oil, or the lubricant is contaminated

by dirt or water, the assembly overheats. That's a hot box.

• **The Dollar Cost**—One eastern railroad studied the cost of hot boxes, found that each roller-bearing failure averaged out at \$715.29 if the breakdown happened on the road. If the failure was detected in the shops, where it could be repaired, the average cost dropped to \$122.54. It proved impossible to calculate the loss if a wreck resulted from the hot box.

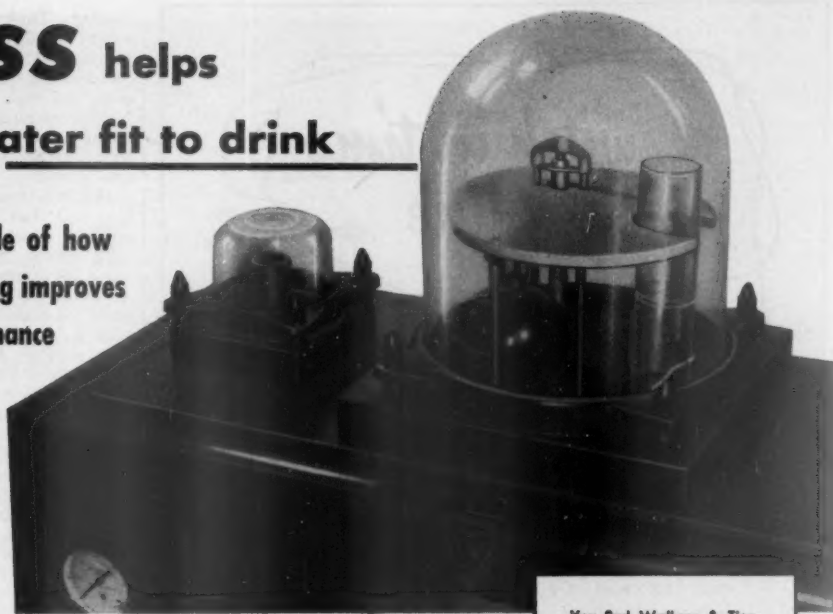
Failures in friction bearings ranged from \$228.47, for a bearing that could be merely inspected and relubricated, to \$564.69 average expense of replacing a journal so badly damaged that the car couldn't be moved.

One western road estimated that hot boxes occur at a rate of about five a day over its whole system.

• **NMB's Oil Seal**—As part of its campaign to sell the railroads on roller

GLASS helps make water fit to drink

Another example of how
GLASS by Corning improves
product performance



Two pieces of PYREX brand glass 7740 safely house important operating parts atop Wallace & Tiernan's Air Master Chlorinator. The large "bell jar" covers, without hiding, a pressure-reducing valve and metering orifice. The smaller dome is an atmospheric chamber.

Wallace & Tiernan chose PYREX brand glass 7740 because it insures permanent visibility (it's important for the operator to see what's going on) and because it stands pressures, vacuums and refrigerating effects that crack ordinary glass.

PYREX brand glass 7740 has many other qualities—Ruggedness and transparency are only two qualities that have made this glass the glass of

a thousand uses. It's also corrosion proof. It's hard and smooth, so it cleans easily. It's non-contaminating. It has great resistance to sudden temperature changes. And it's available now—without limit.

Corning has many kinds of glasses—PYREX brand glass 7740 is only one of hundreds of glasses Corning has developed in answer to specific industrial and consumer product design needs. Among them may be just the one to improve *your* product's performance, increase its sales appeal, or cut your production costs.

Be sure your engineers are up to date on the facts about glass as a modern engineering material. It will involve no obligation to call in a Corning man experienced in glass design and application. Write, wire or phone Specialty Products Department, Corning Glass Works:

You find Wallace & Tiernan's Air Master Chlorinators, with their PYREX "bell jars" and domes, in municipal water works, sewage and industrial waste disposal plants, oil refineries, power generating stations and other plants using large volumes of water.

Send for this 12-page illustrated idea book, "GLASS—its increasing importance in product design." The coupon is for your convenience.



Corning means research in Glass



Visit the Corning Glass Center

Corning Glass Works

20 Crystal St., Corning, N.Y.

Please send me your 12-page illustrated booklet, "Glass, its increasing importance in product design."

NAME _____ TITLE _____

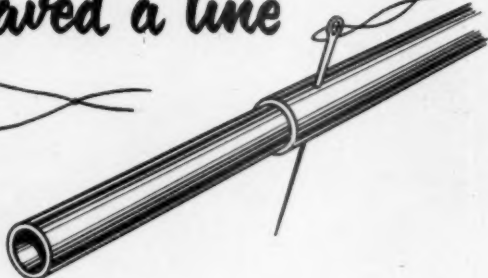
COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



*a switch in time
saved a line*



Consider what tube failures in a condenser means. Think of the damage that faulty tubes can cause; what they can cause in a refrigeration or air-conditioning unit, in a plumbing installation or in the tubular lines of other products.

Today, in the face of serving both civilian and defense requirements; the prevention of unexpected breakdowns, frequent product replacements and wasted materials is vital to our nation's welfare.

Such threats can often be averted by switching to copper or copper base alloy tube ideally suited for your specific application.

Every tube produced by Wolverine has behind it craftsmanship—craftsmanship gained through thirty-five years of manufacturing tube exclusively. Coupled with quality control "from ore to finished product," the specialization reflected in Wolverine tube can help to "save the line."

Any equipment you are now operating—any you contemplate purchasing—any tube replacements you anticipate—make sure they are of the proper alloy and of a quality that will give you long dependable service—the only quality that Wolverine manufactures.

WOLVERINE TUBE DIVISION—Calumet & Hecla Consolidated Copper Company, Inc., *producers of quality-controlled tube for refrigeration, processing industries, plumbing, heating and air-conditioning, automotive and aviation*—1469 Central Ave., Detroit, Mich.—Plants in Detroit, Mich. and Decatur, Ala.



bearings, Timken Roller Bearing Co. sought an oil seal that would make its bearings virtually failure-proof. The problem was more to keep dirt and water out than to keep lubricant in. NMB's research engineer, Fred A. Helfrecht, went to work on the problem. That was approximately five years ago.

Helfrecht soon came up with a face-type seal: two machined metal faces polished to such fine tolerance that they could spin against each other without losing oil or admitting foreign matter. At about \$20 each, these turned out to be too expensive; they're now being made for use in Army tanks. Helfrecht then switched to a shaft seal, which sells at about \$5.15 per seal.

• **In Use**—So far, NMB has sold Timken 38,976 seals, enough to equip 4,872 four-wheel-truck cars. These are all conversion jobs, with costs for adaptation of the journal box and fittings as well as for the seals themselves. Timken has made installations on Union Pacific, Great Northern, Chicago & Milwaukee, and a couple of other railroads.

In addition, Timken has an order for 20,000 NMB seals for the Quebec, North Shore & Labrador Ry. Co., which is building from scratch a 357-mile road from Seven Islands, Que., to the new iron ore property on the Quebec-Labrador border (BW—Aug. 11 '51, p102). That's a big enough order to equip 2,500 ore cars. It will be a brutal test for the seals; loaded, these ore cars will have a load of 251,000 lb., about 465 lb. per sq. in. on the journals.

• **Do They Work?**—Two years ago Timken installed NMB seals on some Union Pacific livestock cars that run steadily between Los Angeles and Salt Lake City. These cars have piled up close to 300,000 miles without a single bearing failure and without requiring any additional lubricant.

Great Northern uses the seals on a light freight car that runs between Chicago and Portland, Ore., as part of a passenger train. The last time NMB heard, the car had gone 110,000 miles without failure and without additional lubricant.

Johnson says that he is delighted with the results to date, but he won't be satisfied for another year. The company's aim is to make seals that will preserve the lubricant for a full three years. The Assn. of American Railroads requires bearings to be pulled for inspection anyway at three-year intervals.

National is now designing a seal for Timken to install in bearings for new cars, and it's also working on a seal for friction bearings. Since there are many more friction bearings in rail use, the economies can be even more spectacular. As it is now, friction bearings lose so much oil that railroads use the cheapest grade of lubricant on the as-



ONE
PACK'S WORTH
OF

Electricity...

BREWS 480 CUPS OF COFFEE



ELECTRICITY...so much for so many
... for so little



**BABCOCK
& WILCOX**

Not many commodities have a 20¢ price tag in today's market, but two dimes will still buy you one day's smoking pleasure . . . or about 8 kilowatt-hours of electricity. You can't smoke that electricity—or drink it—but one of its greatest values lies in its versatility . . . the infinite variety of things it will do in your home from brewing gallons of coffee—enough to serve 120 people four cups each—to fan-cooling your home or office for 114 consecutive hours. It is an indentured, household servant that will work for you in countless ways, day and night. At your direction, it will give your family . . . 80 solid hours of radio and recorded music . . . or 26½ hours of television viewing . . . or 31 hours of oil

burner operation . . . or 38 hours of refrigerator operation . . . or 29 hours of vacuum cleaner use . . . do an almost endless succession of tasks for your comfort, convenience and pleasure. And remember the cost—cigarette money.

Vital as it is to our American way of life, electricity is by far the smallest item in today's family budget . . . and biggest bargain. While living costs soared to a record high in 1951, its average over-the-nation price actually came down 2 per cent!

America's power companies supply the best electric service in the world . . . at prices everyone can afford. Allotted the materials needed to fulfill long-range multi-billion dollar expansion plan, they will continue to do so.

One of a series of advertisements sponsored by
The Babcock & Wilcox Company to bring the facts about electric power to the public.

N-132

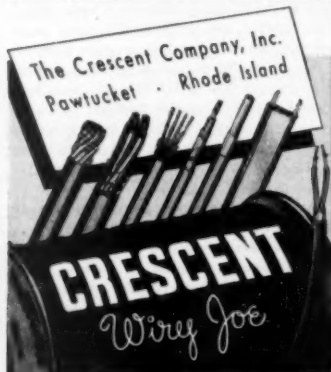
CRESCENT ENGINEERING...



your plus value when buying wire and cable

Through engineering collaboration with our customers, we at Crescent can develop recommendations for wire and cable that often improve product performance, simplify production and, reduce manufacturing costs.

For automotive, electronic, welding, and countless other industrial uses, Crescent manufactures a broad variety of wire, cable and wiring harness. Our uniquely complete production facilities cover all phases of cable manufacture, from drawing of wire to fabrication of insulation. Exacting laboratory control maintains uncompromising standards of quality... assures performance of the finished product delivered to you. We'll be glad to work with you on your wire and cable applications. Write to us today!



"... railroads are no push- overs for new gadgets ..."

OIL SEALS starts on p. 152

sumption most of it will be wasted. That in itself raises the incidence of failures.

• **Size of Market**—Offhand, you'd think National Motor Bearing had a huge market to tap. It is big: more than 2-million freight cars and 40,000 passenger cars already in service, 108,913 cars on order for delivery in 1952. But railroads are no pushovers for new gadgets.

With all Timken's enthusiastic promotion, NMB has sold only enough seals in five years to equip a mere 4,800 cars, half of which are the ore cars yet to be built.

Johnson's company can afford to wait for the railroads to buy. Rail car bearings are only a part of NMB's diversified line.

• **Growth**—The company was far from "national" when Lloyd Johnson opened his first 17-ft. square shop on a San Francisco side street in 1921. Capital consisted of \$1,200 borrowed from relatives; the working force was Johnson and one other man.

Johnson had picked out the ambitious name because he liked the sound of it, but, actually, the shop's work was then limited to rebabbitting burned-out connecting rod bearings for automobiles.

When Johnson found it hard to buy shims cheaply enough and in sufficient quantity, he started making shims for his own use and to sell to other garages around San Francisco. In 1929 he got interested in oil seals, bought patent rights, and made them his chief business.

The growth to national stature began only about 10 years ago. In 1941 Johnson built a headquarters plant in Redwood City, 20 miles down the peninsula from San Francisco. He also built a plant at Van Wert, Ohio, to be operated by the National Seal Co., a wholly owned subsidiary.

Originally, oil seals used leather exclusively for the sealing flange, but synthetic rubber came into use during World War II for some applications. To manufacture his own synthetic rubber, Johnson bought the Arrowhead Rubber Co. at Downey, Calif., near Los Angeles, in 1944. All three plants have since been enlarged.

• **Many Pitches**—With a chance to sell in many fields—NMB has a slogan that says "National oil seals are used wherever shafts move"—the company boosted its sales volume from \$1-million in 1940 to nearly \$19-million in 1951. It sells a lot of seals to the auto makers; an auto needs from seven to 14 oil

2 POINTS

you can
always
count on it

Potter & Brumfield RELAYS

1. accuracy
2. dependability

... reflecting in your product the sign of good design ... consistent quality manufacturing.

Leading supplier of relays for every electrical and electronic application. Specialists in relays for military equipment.

Send your specifications for recommendations, samples, and quotations.



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MAD AS A WET HEN



OVER FOREIGN TRADE DETAILS?

Customs regulations ... consular invoices ... insurance ... special packing ... routing ... and other tedious tasks associated with importing or exporting are enough to dampen the spirit of anyone—except those who thrive on them. Let BARR Specialists rid you of shipping complexities—free you for your profitable specialty.

Investigate! Write for helpful free booklet FTD.

Bar Service Assures Prompt Dispatch

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SHIPPING COMPANY
25 BROADWAY
NEW YORK 2, N.Y. U.S.A.

seals, depending on its brand. Even lawn mowers often use a pair.

This diversion of market is the reason NMB can afford to wait for the railroads to adopt the new oil seal as standard equipment. Johnson thinks his business is pretty close to being depression-proof. In good times, people buy new cars and trucks—that sells oil seals; in bad times, they buy replacement seals to keep old cars and trucks operating. In wartime, the military needs great quantities of oil seals for all kinds of rolling stock; comes peace, and the auto makers get busy again.

• **No Time to Retire**—Meanwhile, Johnson goes happily along his way running a growing company. When he was 25, a year before he founded NMB, his great ambition was to make enough money to retire at 45 and spend his time hunting and fishing. When he hit 40, he knew he wouldn't be able to afford it at 45, and he pushed his target date ahead to age 55.

When he was nearly 55, Johnson had his golden chance to retire with honors. An eastern company offered to buy him out at a good price. By that time, though, he was getting more fun out of his business than he would from hunting and fishing, and he turned the offer down. Now, at 57, he doesn't think of retiring—ever.



90,000-Volt Testing

Insulators are built to withstand plenty of electricity, especially in big power installations. To weed out imperfections, Westinghouse Electric Corp. tests its insulators on a conveyor line, under conditions that would rarely be duplicated in actual service. Man-made lightning of 90,000 volts arcs from brass rods overhead to the insulators. The high voltage quickly shows up any flaws in the porcelain of the insulators.



HOW EMPLOYEE GOOD WILL BUILDS FORT WAYNE EFFICIENCY



In 44 straight years of producing corrugated shipping containers for industry, Fort Wayne has never lost sight of the fact that men and women make the company. The tools are important—the widespread plants and mills, the modern machinery and equipment, the virtually inexhaustible sources of raw materials. But people make it work—Fort Wayne's big, friendly family of folks who know container making from A to Z. Through training and managerial programs Fort Wayne encourages and helps in employee progress. Through sound human relations Fort Wayne develops full communication from top to bottom of the organization—and back again. There's good will both ways, too. It all helps. It helps the employee, the executive, the stockholder who owns the business . . . and the shipper who calls on Fort Wayne for efficient production of superior corrugated shipping containers.

CORRUGATED FIBRE BOXES
CORRUGATED PAPER PRODUCTS

Fort Wayne
CORRUGATED PAPER COMPANY

GENERAL OFFICES • FORT WAYNE 1, INDIANA

Plants:

Rochester, New York
Chicago, Illinois
Pittsburgh, Pennsylvania
Hartford City, Indiana

Mill:

Vincennes, Indiana

Affiliate:

Southern Paperboard
Corporation
Port Wentworth, Georgia

Sales Offices:

Chicago, Ill.
Jackson, Mich.
Buffalo, N.Y.
Jamestown, N.Y.
New York, N.Y.
Rochester, N.Y.
Syracuse, N.Y.
Utica, N.Y.
Akron, Ohio
Cincinnati, Ohio
Cleveland, Ohio
Dayton, Ohio

Lima, Ohio
Hartford City, Ind.
Indianapolis, Ind.
Muncie, Ind.

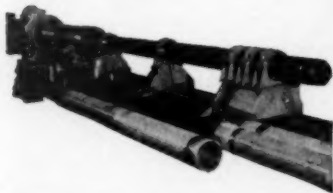
Washington, Ind.
Pittsburgh, Penna.
York, Penna.
Milwaukee, Wis.



How to Increase
Machine Tool Output with

Engineered Rebuilding

Another example from Simmons' Casebook



Ohio Manufacturer Gets New-Machine Accuracy, Extra Capacity with Rebuilt Lathe

It took some expert machine-tool engineering to convert a 72" boring lathe into this high-capacity, rapid-production machine. Here's how Simmons Engineered Rebuilding went to work for Sandusky Machine & Foundry Company, Sandusky, Ohio:

- Original 72" swing increased to 84" clear over bed.
- Capacity increased to take 30" boring bar.
- New carriage has independent motor-operated feed and rapid traverse.
- Headstock raised; new castings made for tailstock and bar-rests.

Rebuilt from the Ground Up...

In addition, Simmons completely rebuilt the lathe: took it down to bare castings...cleaned it...replaced worn parts and refinished sliding surfaces.

Will Rebuilding Work for You?

It's easy to find out: simply send a list of your machines that might be rebuilt to meet new problems. We'll promptly quote prices and deliveries...send you our casebook "The Simmons Way".

Simmons Machine Tool Corporation
1735 North Broadway, Albany 1, N. Y.

SIMMONS ENGINEERED REBUILDING
Gives Machine Tools a New Lease on Life

DEFENSE BUSINESS

More Cars Coming

Detroit still wonders if it can sell the cars DPA says it can make. At least, now it knows how it stands.

When Washington showed signs of loosening up enough on materials to practically assure auto makers the 4-million-car output they wanted for 1952, they began to wonder: Could they sell that many cars if they got them? (BW-Mar.22,'52,p28). They're still wondering about this, but at least now they know how many cars they can make.

This month the industry got the last word from Defense Production Administration on April-June production. Go ahead and turn out 1,050,000 cars, DPA said. This is quite different from the second-quarter quota of 930,000 cars, which DPA had settled on first. It's even a boost from the first-quarter ceiling of 1,006,000 autos.

• **Pretty Definite**—DPA won't commit itself on the rest of the year, except to say that even more nondefense materials will probably be available. But if the first quarter was the low point, then the total for the year should top 4-million easily.

All this means that the outlook for the industry has changed tremendously since the beginning of the year. Then, military needs were expected to rise sharply, and DPA warned auto producers that 3,200,000 cars was about all they could hope for this year. But that was before the military decided to stretch out its schedules for arms production. Now that the stretch-out has been translated into terms of metals requirements, there's more for all civilian industry, autos included.

• **The Main Thing**—It's true that some metals the auto producers need will be tight for many months to come, maybe years. But the industry never has got enough out of DPA to match its production ceilings anyway. They've been able to make up the difference out of inventories and by substituting.

Actually, as far as DPA boss Manly Fleischmann is concerned, scarcity of raw materials isn't the main thing that's holding down auto output. What he's chiefly concerned about is components. That's because automobiles take the same general types of gears, valves, and electrical accessories as tanks, ships, and other military items.

• **It All Depends**—Fleischmann isn't much concerned over the wails that

consumers just aren't buying cars these days. DPA's job, he says, is simply to give the auto industry a fair share of the nondefense metal.

But the car industry seems to be concerned—enough so that the January-March output is lagging far behind the rate DPA allowed. On Mar. 15, with less than a month to go, Detroit was 200,000 cars short of the 1,006,000 ceiling for the quarter.

Part of this deficit it can make up by Apr. 1, the rest it can make up in the second quarter if it wants to. You have to remember, too, say industry men, that some companies, such as Nash and Ford, are behind because they stopped production to change models at the beginning of the year. Anyway, Detroit is still plugging for additional materials for the rest of the year.

• **Shakedown**—The industry has already asked DPA to let it make 1,100,000 cars during July-September. DPA snapped a quick "No." But the industry hasn't given up yet. It won't until DPA comes out with something definite. That isn't likely to happen until around the first of May.

CHECKLIST:

Defense Regulations

The following listing and condensed description cover all the materials and price-control regulations issued by the defense agencies during the preceding week.

Full text of the materials orders may be obtained from National Production Authority, Washington 25, or from any Dept. of Commerce regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

Materials Orders

CMP deliveries: Permits users of controlled materials to receive orders from distributors 15 days before the quarter for which the allotment is valid. CMP Reg. 4 amended (Mar. 21).

Stainless steel: Converts authorized controlled materials orders for non-nickel-bearing stainless steel, which were outstanding when such steel became noncontrolled, to delivery orders bearing a DO rating. CMP Reg. 1, Dir. 9 amended (Mar. 21).

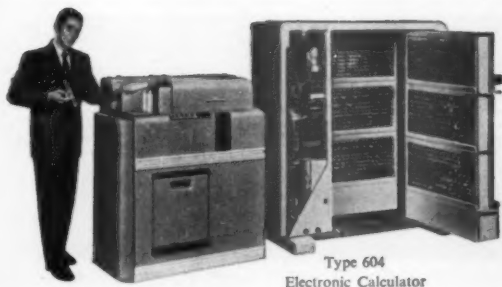
Ferroalloys: Adds to the products in



Fingers You Can Count On

These are electronic "fingers" . . . the compact and rugged pluggable units in IBM Electronic Business Machines. Their high-speed counting capacity and amazing accuracy meet the most exacting accounting and calculating requirements of business, industry, and engineering.

These "fingers" . . . backed by IBM service, research, and development . . . are helping to fulfill production demands with economy of time, materials, and costs.



Type 604
Electronic Calculator



Electronic Business Machines
INTERNATIONAL BUSINESS MACHINES



THIS
QUARTER-INCH
KEEPS EVERY
BIG INCH

alive!

EVER see them lay a gas or oil pipeline like *this*? We mean the "big inchers" you could crawl through. They're so vital that industry is laying millions of dollars worth of new ones every year.

Unprotected, these underground steel arteries would soon rust away. But industry has developed a life-saving sheath for them and often, the main protective material is Pitt Chem Tar Base Pipeline Enamel—an impervious product of coal.

As a *basic and integrated* producer of coal chemicals and related products, we closely control *quality* from coal to finished coatings. That's why Pitt Chem Enamels perform better in application and service.

Whether you're considering protective coatings, or the products of any of our other integrated divisions, you'll find that it pays to buy from a basic producer.

- ★ Standard Grade Tar Base Enamel
- ★ Modified Grade Tar Base Enamel
- ★ Plasticized Grade Tar Base Enamel
- ★ Cold Applied Tar Base Coatings
- ★ Synthetic Base Coatings

WHD 3360



PITTSBURGH
COKE & CHEMICAL CO.

which the use of nickel-bearing stainless steel, high nickel alloy steel, and nickel silver is prohibited. M-80, Sched. amended (Mar. 24).

Pricing Orders

Parity adjustments: Directs processors of agricultural commodities who make parity adjustments in their ceilings to notify their district OPS offices rather than the national OPS office. GCPR, Amdt. 30; Del. of Auth. No. 56 (eff. Mar. 22).

Auto financing charges: Permits sellers of new automobiles to add normal financing charges to authorized ceiling prices. CPR 83, Sec. 2 and 16, Interp. 1 (eff. Mar. 17).

Waxed papers: Sets up a tailored regulation providing manufacturers' ceilings in dollars and cents for about 90% of the waxed paper produced. CPR 130 (eff. Mar. 24).

Willys-Overland automobiles: Authorizes new increased basic retail dollars-and-cents prices for the Willys-Overland series of 1952 station wagons. CPR 83, Sec. 2, Spec. Order 18 (eff. Mar. 19).

Wholesale grocery-zone differentials: Permits wholesale grocers to add increases in freight rates since January, 1951, to their present zone differentials. CPR 14, Amdt. 12 (eff. Mar. 25).

Maine potatoes: Sets up dollars-and-cents ceilings to be used by Maine growers in setting sales prices of white potatoes. CPR 113, Rev. 1, SR 1 (eff. Mar. 18).

Soft-surface floor coverings: Permits certain retailers, decorator supply houses, and carpet contractors of soft-surface floor coverings to continue using indefinitely the ceiling prices in effect before Dec. 19, 1951, for stock on hand purchased before that date. GCPR, SR 11, Rev. 2, Amdt. 3 (eff. Mar. 18).

Branded articles: Sets up new methods and standards for approval of uniform dollars-and-cents retail ceiling prices requested by manufacturers or wholesalers of brand-name articles of apparel and home furnishings. CPR 7, SR 4; CPR 7, Amdt. 16 (eff. Mar. 26).

Consignment sales: Permits a consigner who can show that his method of operating is not adaptable to the retail regulation to apply for a special order. CPR 7, SR 1, Amdt. 9; CPR 7, Amdt. 17 (eff. Mar. 29).

Groundwood printing and converting papers: Sets up manufacturers' dollars-and-cents ceiling prices for 23 grades of groundwood printing and converting papers, as well as means for pricing special grades. CPR 131 (eff. Mar. 26).

Marine terminal association rates: Provides for the establishment or adjustment of uniform marine terminal rates on a group basis. CPR 34, SR 14 (eff. Mar. 29).



ONCE AROUND, PLEASE

You have so much to gain . . . when you let a Rapistan materials handling specialist survey your plant or warehouse. He will show you how to save time, space and labor by the efficient, low-cost Rapistan method. His counsel is free of charge, of course. If he does recommend Rapistan equipment you'll be sure to gain in dependable, economical service day in and day out . . . because Rapistan equipment is *Better 3 Ways!* Rapistan flexibility gives you conveyors adaptable to any floor plan; relocating the line is easy as moving furniture. Rapistan quality assures trouble-free service by the world's "strongest per pound" conveyors with many patented features. Rapistan value means low original cost, immediate savings in time, space and labor. Rapistan equipment pays for itself . . .

Better see Rapistan first!



TO HELP YOU: We will be pleased to send you a free 28-page book packed with ideas on how to solve your handling problems. If you desire, we will also survey your handling needs without obligation. Write today.

The RAPIDS-STANDARD CO., Inc.
649 Rapistan Bldg., Grand Rapids, Mich.

Rapistan®
BETTER CONVEYING EQUIPMENT

Representatives in Principal Cities
CONVEYORS • INDUSTRIAL CASTERS • WHEEL-SEY® TRUCKS



A UNIT of Rapistan equipment can turn your handling problem into profit. Here a Floor-Veyor® power belt moves automobile supplies directly from receiving to second floor storage, saving slow elevator time and extra labor. When you need a low-cost, single unit answer to your problem, see Rapistan first!



A LINE of Rapistan equipment can solve a wide variety of problems. Here a movable line of Rapid-Wheel® gravity conveyor flows cartons continuously from box car into warehouse. Minutes later it can be moved elsewhere for another job. For conveying equipment that pays off in many ways, see Rapistan first!



AN ENGINEERED SYSTEM by Rapistan costs less because it's formed from combinations of "standard" units . . . not high priced "specials." It speeds output and cuts costs immediately. Manufacturer, wholesaler or retailer . . . if you have a tough handling problem, call on Rapistan engineers first!

©1951

KEEP VALVE LUBRICANTS OUT OF AVIATION GASOLINE



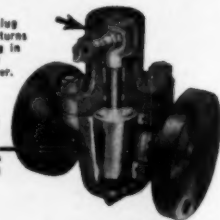
Cameron NON-LUBRICATED LIFT-PLUG VALVES

The costly refining and blending processes required to produce aviation gasoline may be partially nullified by greases which wash out of lubricated valves and stop cocks. This source of product contamination may be effectively eliminated through the use of Cameron NON-LUBRICATED Lift-Plug Valves. These remarkable valves operate easily and effect a positive closure without the aid of lubricants.

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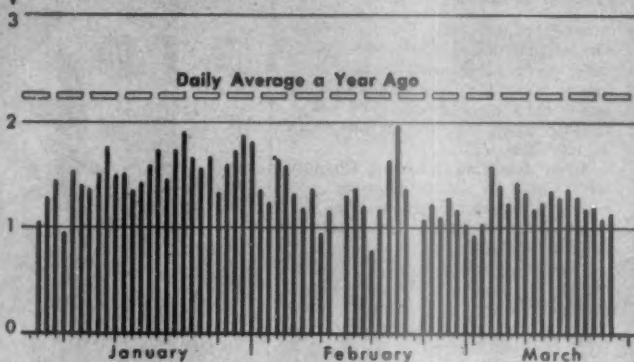
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San Antonio, March 31-April 2

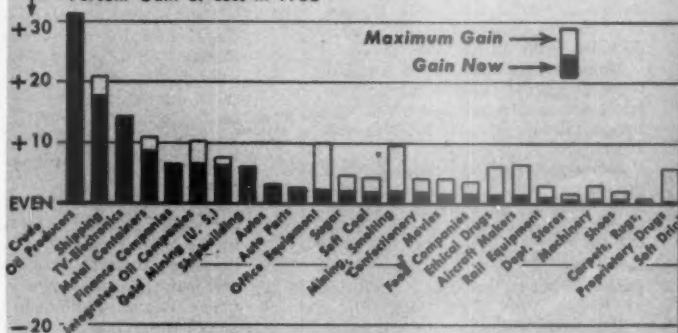
FINANCE

Millions of Shares Daily (N. Y. Stock Exchange)



1 What do you mean, "Bull Market?"
It doesn't show up in recent trading . .

Percent Gain or Loss in 1952



3 In fact, if it hadn't been
for a few sharp gains . . .

Data: Standard & Poor's Co.

Bulls Hail "Their" Market-

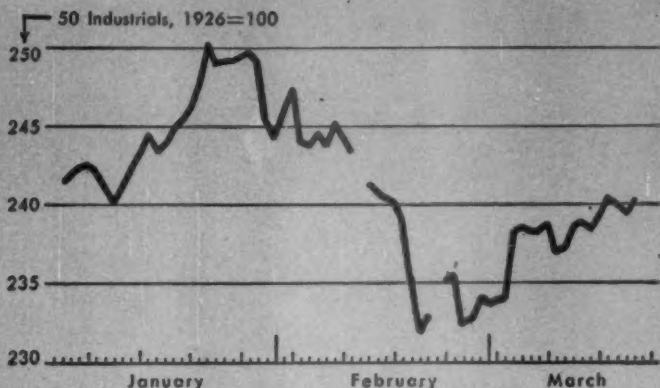
Businessmen aren't the only people who are "worried, oppressed, and uncertain about the future" (BW-Mar. 22'52,p24). The same anxieties are weighing heavily on a mounting number of investors and traders.

Take a look at the charts above. Collectively, they give a bird's-eye view of just how inconclusive Big Board proceedings have been for much of this year. They show why many a Wall Street bear has felt safe in needing

his more bullish neighbors with: "What bull market?"

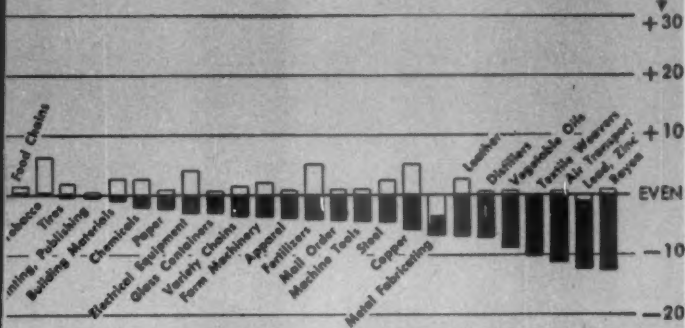
• **Volume Off**—Trading volume on the New York Stock Exchange to date has been running 40% below its level for 1951 and 19% under this same period in 1950. Even more disturbing is the tendency of volume to reach levels like those of 1951 only when prices have started to decline sharply.

To date, prices haven't taken any nose dive comparable with that in vol-



2 ... And it's not apparent in the recent price trend:

Percent Gain or Loss in 1952



... the general price picture would have been a lot worse

But Bears Wonder Why

ume. But the encouragement to be had from this is slender.

Standard & Poor's industrial average early this week stood no higher than last September and lower than at the start of 1952. The drop would have been even sharper except for the sensational advances of a relatively few issues, particularly in companies connected with the oil business.

• **No Funeral**—Nonetheless, despite all the unfavorable implications, this isn't

necessarily the time to call the undertaker.

For one thing, there never has been a bull market that moved only up. There are always resting periods while gains are being digested. Recent weeks may be merely one of these normal pauses.

Thus far, the market has only occasionally had to withstand a flood of selling orders. And in these cases, there has been no follow-through of the price

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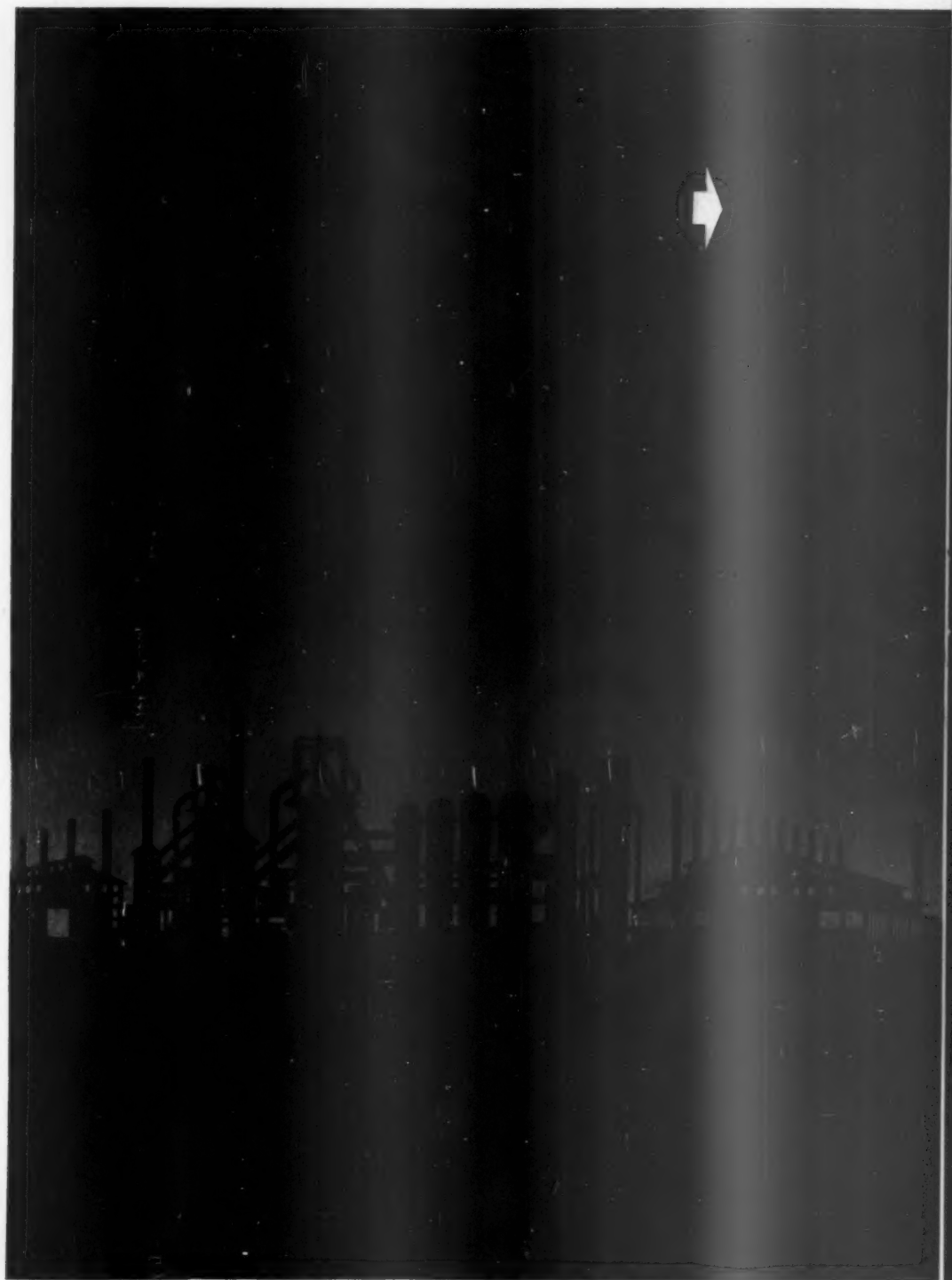
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WHAT WE MUST DO...

Remember: steel is made half from pig iron, half from scrap. Every furnace that is allowed to cool—for lack of scrap—means lost manpower, reduced productive capacity, less of the material to keep our economy healthy, and our defense strong.

Every man, woman and child in America has a stake in steel. We've got to ferret out this idle scrap . . . and keep it flowing, day after day, into the nation's mills. "We must not—we cannot . . ." as Charles E. Wilson, Director of Defense Mobilization has so succinctly said, "let America's furnaces cool down."

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And—in times like these—it is heartening to know that, *no country or combination of countries in the world has a business press that can compare in size, character, or ability to serve with that of America.*

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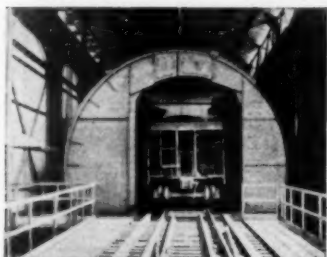


HEADQUARTERS FOR BUSINESS INFORMATION

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ENGINEERING COMPANY-CLEVELAND

**"... the present bull move
... probably the most con-
servative in history ..."**

FINANCE starts on p. 162

weakness; neither has there been any strong rallying power after the sell-offs. On balance, most of the inconclusiveness of the 1952 market seems more due to an absence of buying orders than to any concerted determination to liquidate, come what may.

• **Investment**—To the market's more bullish segment, recent goings-on have been a most heartening demonstration of basic soundness. These people make much of the fact that—despite domestic and foreign uncertainties—there has been no serious deterioration in the price indexes that they use to gauge the market's health. In this, they find proof of their long-standing claim that most of the buying in the 1949-1952 bull market has been by long-term investors who don't intend to be disturbed by temporary ups and downs.

• **Conservative Market**—In one sense, the optimists are not gilding the lily unduly when they describe the present bull move as probably the most conservative in history.

At no time in its course have the low-priced speculative issues been its star performers, as they always were in previous bull markets. Strong, basically sound companies have been the primary buying targets most of the time. For most of these shares there has been none of the too-avid bidding that marked previous periods of optimism. One of S&P's market yardsticks shows that industrial stocks are selling at levels only about 9.6 times estimated earnings, and are offering buyers an average yield of over 6%.

• **Growth Stocks**—Not all industrials have such favorable price-earnings ratios. While "penny speculators" haven't been prominent in the market, investment money has bid eagerly for some of the so-called growth stocks.

The common stocks of Union Carbide & Carbon and J. C. Penney are now selling at about 17 times 1951 earnings; Dow and du Pont at around 13 times. Monsanto Chemical is available only at some 20 times its 1951 earnings, and Minnesota Mining & Mfg. at almost 22 times.

Growth company issues hitting the market for the first time have been greeted with feverish bidding. Owens-Corning Fiberglas Corp. shares are now selling at \$45.50; that's \$10 above the offering price when the stock appeared on Feb. 7, and over 20 times the company's 1951 earnings figure of \$2.25. A new drug stock—Schering Corp. common (BW—Mar. 22'52, p. 23)—was

snapped up in mid-March at a price 2.7 times its book value, and 22 times its 1951 earnings.

• **Oils Also Strong**—Buyers have laid siege to all sorts of oil stocks lately, both proved and speculative shares. Non-oil companies with large land holdings in or near the new oil-strike areas have also been popular. Thus Northern Pacific Ry. common, down as low as \$31.75 at yearend, recently traded at \$85.62.

The liberal-yield stocks need some examination, too. In these days of high taxes, the size of dividends doesn't mean so much as it once did. Some years back, a 5% yield meant virtually a 5% return on the investor's money. That's no longer the case, tax rates being what they are today. Today a man and wife with a joint income of \$20,000 get only a 2.5% after-tax return on a stock holding paying 4.31%. A couple in the \$60,000 bracket needs a 7.58% return to net 2.5%. A pair in the \$100,000 class needs a startling yield of 10.8% in order to take home 2.5%.

• **How Conservative?**—The heavy bidding for many favorite stocks raises this question: Has the 1949-1952 bull market been as conservative as the bulls claim? The bulls point out that almost all the growth stocks that have been bid way up are going into the strongboxes of professional money managers and other smart investors who can't be stampeded easily. The stocks have been bought for a purpose; they won't be dumped pronto on any scare news.

The bulls argue further that times have changed. In the past, basic deterioration in one or two key industries—such as has been seen lately—usually spread throughout the economy and provoked a general sale of stocks. That's no longer the case. Rising defense spending can now be depended on to offset weak segments in the economy.

Because "things are different now" and because of the "preponderance of investment buying that has been seen in this bull market," many Wall Streeters have the definite, unshakable belief that a floor has been built under the market. They admit that prices can fluctuate. But they can't see any serious market decline for some time.

• **Skeptics**—Many holders of rayon, department store, textile weaving, lead and zinc, whiskey, air transport, and some other shares find it hard to agree with this viewpoint. They've seen prices of their shares drop way below their bull market highs. And they're wondering if the bulls' vaunted floor under the market isn't made of rubber.

Normally, the stock market's price levels are determined by earnings and dividends, not by the general level of business activity. On this point, there

is considerable queasiness among many investors and traders.

• **Other Worries**—What will taxes do to net profits this year? What about high costs and the low profit margins inherent in defense production? What about the huge productive capacity now available in so many lines? Can it be utilized profitably by normal consumer demand not stimulated by scare buying? How about management generally? In the dozen years of boom, has it forgotten how to sell and operate under more normal conditions?

Such worries aren't good fuel for the fires of optimism needed to keep a bull market under full steam. And the fact that the bull market has not yet fallen out of bed doesn't prove that it will go on forever.

Bull markets follow Newton's law of inertia. They continue in motion until outside forces intervene. The length of the ride is less a matter of momentum than of interference. On that basis, with all the current political, business, and foreign uncertainties, the market doesn't seem so far out of the woods as a lot of bulls would like you to believe.

Glenn McCarthy Invites Public to Join Oil Hunt

Irrepressible Glenn McCarthy is going to start a new oil exploration company. This time McCarthy wants to let the public in on the deal. The current speculative fever for oil stocks (BW—Mar. 8 '52, p158) may have something to do with his decision.

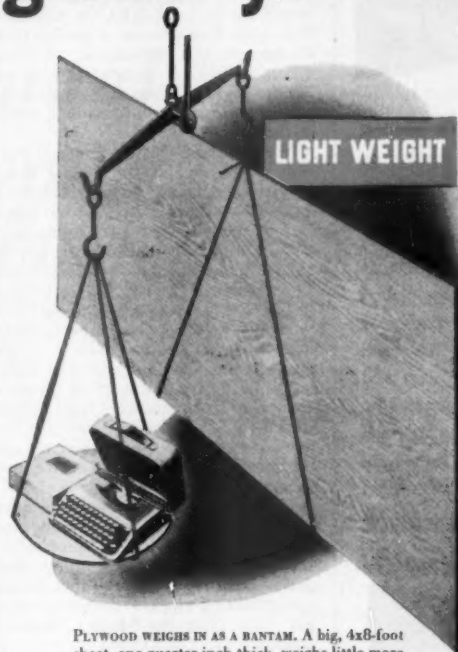
McCarthy has been looking around for a new venture since top direction of his McCarthy Oil & Gas Corp. and McCarthy Chemical Co. was taken over by, respectively, Equitable Life Assurance Society and Metropolitan Life Insurance Co. (BW—Mar. 8 '52, p152). McCarthy was unable to keep up full payments on about \$50-million of loans.

Now McCarthy wants the public to put up about \$50-million of risk capital in Glenn H. McCarthy, Inc. "My record for discovering oil," he told Houston newspapermen, "speaks for itself. Every day I get dozens of letters from average people all over America asking me how to get in the oil business, to make investments for them in oil, or simply asking for financial advice."

B. V. Christie, a Houston investment banker and a friend of McCarthy, says he is going to head an underwriting syndicate for the stock issue. Says he: "We have no properties, no commitments, no geologists' reports. All we have is faith in the king of the wildcatters."

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6



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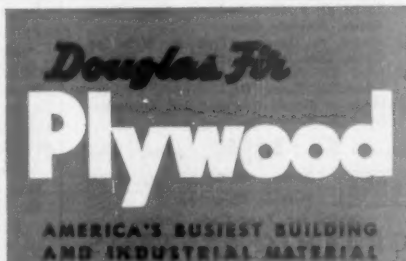
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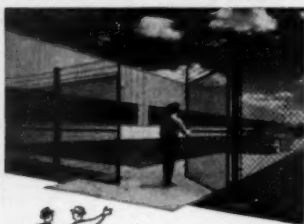


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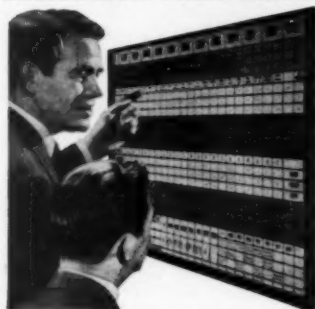
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Young's New Guessing Game

It doesn't take much to start Wall Street speculating about Robert R. Young. This time it's a large hunk of banking stock he's acquired. The question: What's behind the move?

Robert R. Young, the financial Lochinvar from New York, Cleveland, and points west, is moving further away from his home base, the railroads. This week Young made it known that his interests had gradually accumulated a large block of common stock in Marine Midland Corp., a holding company that owns the only banking chain in the East.

• **Well in Hand**—Marine Midland controls practically all the capital stock of 14 banks, with 113 offices, scattered around New York State. Marine Trust Co. of Western New York is the largest depositwise (yearend 1951 total: \$522-million); Marine Midland Trust Co. of New York is a close second.

The Young interests have about 94% (508,000 shares) of the common stock, biggest bloc in Marine Midland. This might be enough to give Young working control if he wanted it, barring any serious opposition from other stockholders. However, he says he doesn't expect to put a director on the board, or attempt to make any change in policy.

• **Guessing**—Young's announcement was no surprise to Wall Street, but it did set off a lot of speculation. Bankers recalled, for one thing, that during the 18 months or so that Young was collecting stock a definite change did take place in Marine Midland policies.

This is the sort of thing that's been happening. The holding company has been picking up banks for years, but until last year had never resorted to issuing preferred stock to get the necessary capital. Raising senior equity money would have permitted the company to acquire more banks, broaden its operating base, and thus presumably increase per-share earnings on the common. And last fall Marine Midland did an about-face: It issued about \$11-million of 44% convertible preferred. A good piece of this was used to acquire the stock of banks in Syracuse and Jamestown.

• **Some Policy Changes**—Another Marine Midland operating policy has been to let each bank follow its own course, using the special services provided by the holding company. Some observers think they saw a change here when Marine Trust Co. of Buffalo merged last spring with six smaller banks in the Buffalo area.

Bankers have noted, too, the amazing growth in 1951 of Marine Trust Co. of New York, one of the smaller Wall

St. banks. During 1951, deposits rose 36%, much faster than in earlier years.

• **Mind Reading**—You have to keep one thing in mind, though: Wall Street is always likely to jump to conclusions where Young is concerned. Spokesmen for the bank itself say that, so far, Young has just been an outside investor. Young himself says that his group bought the stock simply because it's a good investment. It is now selling on the Big Board at \$11½, after rising from \$9 last year, and yields about 4.4% based on last year's dividend.

But people who know Young figure that when he goes into a proposition he usually has more on his mind than just plain investment. They point out two interesting possibilities:

• **Transamerica Corp.**, the big West Coast bank holding company, is said to have had an eye on Marine Midland for a long time. But it didn't dare move in because of the antitrust troubles it's having with the Federal Reserve System. Wall St. wonders: Is Young playing ball with Transamerica?

• **Marine Midland** owns about 95% of the capital stock of its banks. It could sell large chunks of these holdings, retaining enough for control, then launch into other ventures, perhaps even outside banking. If it did that, it would be an investment company on the recent pattern of Young's Allegheny Corp.

• **Worried**—Young purchased the stock through Allegheny, and through Investors Mutual, Inc., and Investors Syndicate of America, Inc. Investors Syndicate is a wholly owned subsidiary of Investors Diversified Services, Inc., which Allegheny got control of several years ago (BW—May 7 '49, p.87). Investors Mutual is an open-end fund with which IDS has a management contract.

Ever since Young went into IDS, people in the mutual-fund business have been worried that the general public's money, invested in mutual funds, would be used to build up Young's personal empire. And it's true that Young has used these affiliates. For instance, they figured in an attempt to get control of Western Pacific R.R., which is now being fought out in the courts. Western Pacific would be a key link in Young's projected coast-to-coast rail system (BW—Mar. 31 '51, p.88).

Nobody knows what attitude the Securities & Exchange Commission will take toward Young's use of his affiliates. So far at least, it hasn't acted.

Facts from the 1951 Annual Report of LION OIL COMPANY LION

FINANCIAL SUMMARY

	1951	1950
Net Working Capital—Dec. 31	\$25,517,316	\$14,654,736
Current Ratio	3.66	2.22
Net Properties (Fixed Assets)	\$67,436,908	\$58,582,040
Total Net Worth—Dec. 31	\$72,018,688	\$50,972,353
Shares of Common Stock Outstanding Dec. 31	2,690,861	2,340,833
Number of Stockholders	11,791	7,439
Total Dividends Paid	\$ 4,856,700	\$ 4,389,056

OPERATING SUMMARY

Number of Producing Wells (net)	795	680
Gross Crude Oil Production—Barrels	8,011,422	7,854,224
Crude Oil Run to Stills—Barrels	8,271,310	7,756,709
Total Refined Oil Sales—Gallons	377,262,270	347,554,939
Elemental Nitrogen (N) Production—Tons	155,379	161,963
Number of Employees—Dec. 31	2,497	2,363
Annual Payroll	\$10,968,405	\$ 9,909,428

In 1951 Lion Oil Company's sales and operating revenues were the highest in the history of the Company. These total revenues were \$86,466,609 as compared with \$81,960,327 for the previous year. Net earnings after deducting all costs and taxes were lower than in 1950, however, due primarily to (1) greater expenses incurred in an intensified exploration for oil and gas, (2) higher wages and increased material costs and (3) larger provisions for taxes on income. Net income after all charges was \$11,751,026 as against \$13,988,245 for the preceding year.

Cash dividends, at the rate of \$2 per share, aggregating \$4,856,700 were paid during the year. This represents 41% of the Company's net earnings.

In October the Company sold 350,000 additional shares of common stock for a net cash consideration of \$14,152,020. This amount was added to the working capital of the Company to replace funds expended for capital additions and to provide for future expansion.

Capital expenditures during 1951 amounted to \$16,299,000 of which \$10,808,000 was for the development of additional underground reserves of crude oil and natural gas. Lion had a share in the drilling of 221 wells of which 160 were completed as oil wells and 7 as gas wells. Company net interest in these successful completions was 148 oil wells and 3 gas wells.

Expansion plans include the construction of a \$5,000,000 enlargement of refining facilities. The operating units to be added, which will be completed in 1953, will permit a 50% increase in gasoline yields and reduced output of less profitable items such as fuel and burner oils. The intense search for and development of crude oil and natural gas reserves will be continued.

CONDENSED EARNINGS STATEMENT

	1951		1950	
	Amount	Per Share*	Amount	Per Share**
For Years Ended December 31				
Sales and Operating Revenues	\$86,466,609	\$32.13	\$81,960,327	\$35.01
Operating Charges, Interest, Etc. (Net)	67,525,583	25.09	61,011,682	26.06
Net Income Before Provision for Taxes on Income	18,941,026	7.04	20,948,645	8.95
Estimated Federal and State Taxes on Income	7,190,000	2.67	6,960,400	2.97
Net Income	\$11,751,026	\$ 4.37	\$13,988,245	\$ 5.98

* Based on 2,690,861 shares outstanding at end of 1951
** Based on 2,340,833 shares outstanding at end of 1950



For 1951 Annual Report, write Public Relations Department, Lion Oil Company, El Dorado, Arkansas



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Too Many Hurdles, So Utility Stays Private

There were just too many obstacles in the way of the deal by which American Power & Light Co. hoped to sell its subsidiary, Washington Water Power Co., to public utility districts in Washington state (BW—Jan. 5 '52, p. 88). Last week AP&L decided to do what some of its major stockholders had wanted all along—distribute the shares of WWP to AP&L stockholders.

"It has become obvious," said AP&L "that a sale of the Washington company stock to the public utility districts could not be consummated within the time contemplated by the board of directors."

The Securities & Exchange Commission, which about a year ago had decided by a tie vote not to take jurisdiction over the sale to the PUD's, had changed its mind and decided to supervise the sale. At the same time, SEC was pressing AP&L to get rid of the stock. Other obstacles:

- The Washington PUD's could not legally acquire WWP's Idaho properties, which were difficult to separate from the rest of the system.

- The deal might well have been blocked by a refusal of the Voluntary Credit Restraint Committee to O.K. new bond issues by the PUD's to finance their purchase. But, this week, this bar dropped with a clatter when President Truman said he wanted VCR restraints removed where state and local issues are concerned (page 9).

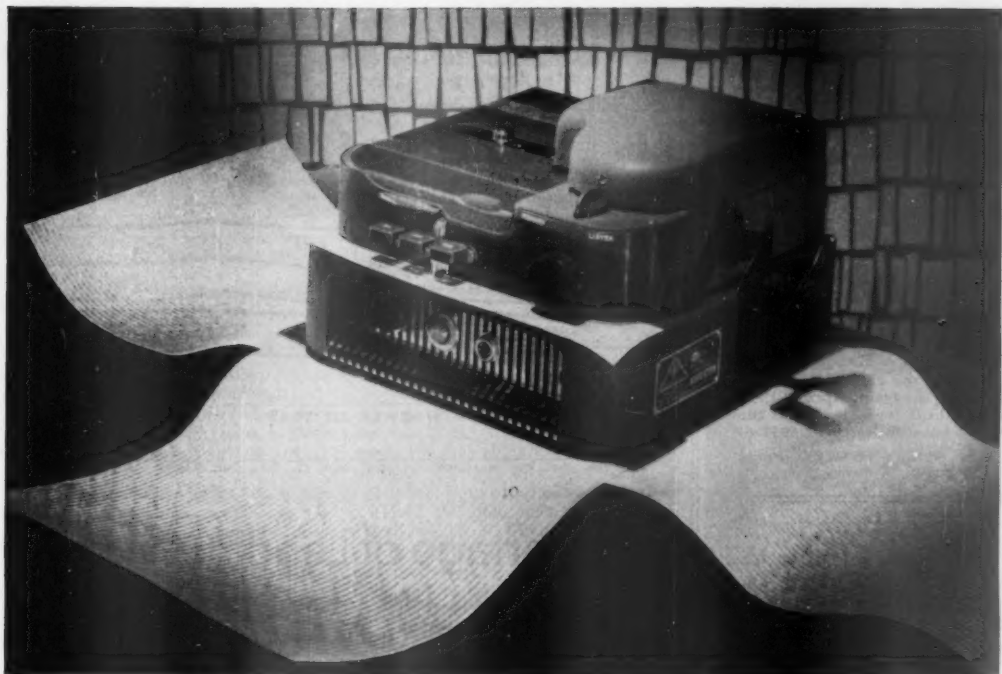
FINANCE BRIEFS

Government obligations held by the public and falling due within the next 12 months now add up to over \$65.5-billion. A year ago such maturities were only \$52.6-billion.

Business and industrial loans of Manhattan banks rose \$65-million to an all-time high of almost \$8-billion last week. The figures come from New York's Federal Reserve Board.

York Corp., major manufacturer of air-conditioning machinery, denies recent rumors that it is negotiating the sale of its property to International Telephone & Telegraph Corp. Denial came last week from York president S. E. Lauer.

Shell Oil Corp., U. S. unit of London's Royal Dutch-Shell group, will finance its entire current expansion program with its own resources. Shell plans no new capital financing in the U.S.



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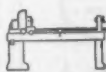
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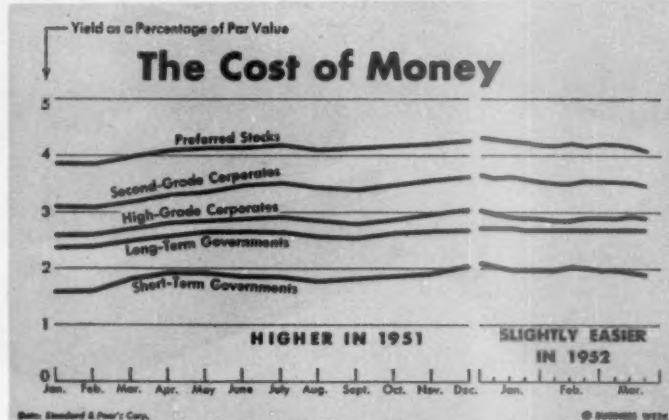
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THE MARKETS



No Shortage of Lending Money

Money rates, which have been easing slightly since the first of the year, didn't tighten under Mar. 15 impact. But from now on it's up to Washington and the individual saver.

To the average businessman, money rates are something he heard about in Economics 201. That's because, in many business operations, interest charges are a very small part of total costs. But even in these industries, corporate treasurers keep an eye on money rates. The trend in rates is a factor in deciding when to offer securities, when to borrow money from banks. And it is a good thermometer of the general business climate.

That's why it's worth taking a look at what has happened in the money market lately. The rise in rates, which had been going on since the Federal Reserve pulled the pegs from under long-term bonds last March, has turned into a gentle decline. The change started about the end of the year (chart).

Quite unexpectedly, this relative easiness in money rates has carried right through the Ides of March. According to the rules, tax time should have brought on a real money squeeze, comparable to the Christmas shortage, which saw 91-day Treasury bills selling on a yield basis of 1.9%. But so far that hasn't happened, though the pressure will rise later this week as the Treasury makes big calls on the tax receipts it has temporarily deposited in banks.

• **Currency Chill**—The easiness in money rates is part of the general deflationary climate in which businessmen have been shivering lately. With vol-

ume off in many lines, businessmen haven't borrowed so much to buy raw materials. And, with most commodity prices going down, practically no one is doing "anticipatory buying."

Along with this is the well-known fact that people have been saving money. Take a look at the way deposits in savings banks have been building up in the last few months. Life insurance companies, too, have more cash to invest. A lot of this institutional moola goes into government bonds, and some into corporates. That tends to strengthen bond prices and to bring yields down.

Institutional investors also put a lot of their money in residential mortgages. But in recent months the supply of mortgage paper has dropped substantially, forcing funds to seek investment in the bond market or elsewhere.

What happens from here on in the bond market? Will money rates harden, stay about the same, or go lower? Your opinion depends on how you estimate the supply of and demand for investment money.

• **Demand Factor**—On the demand, or borrowing, side (more securities coming into the market work to lower bond prices, raise interest rates):

Plenty of corporate issues will be coming to market in the next few months. President Truman's decision to unleash state and local governments from voluntary credit restraint should

increase municipal issues, too. But plenty of financing has been done already this year without having the net effect of raising rates.

Perhaps more important are the decisions of the Treasury, biggest of borrowers. Corporate and preferred yields will be affected by the Treasury's demand for funds. How soon will Secretary Snyder start deficit financing again?

In any event, the Treasury is going to have to sell some marketable securities this year. And the Federal Reserve

will have to keep money rates stable, at least while sales are going on.

• Supply "Ifs"—On the supply, or lending, side (bigger supply of loanable funds works to raise bond prices, lower rates):

The key questions are whether (1) the public keeps on saving or starts to spend; (2) how much the supply of mortgage paper increases, now that good building weather is beginning.

With all these imponderables, Wall Street refuses to go out on a limb with long-range guesses on the bond market.

How Long Will a Bull Market Last?

If you want to figure out the life expectancy of the current bull market—the one that hasn't been acting at all like a bull market lately (page 162)—you are entirely on your own.

No mortality tables like those the life insurance people use are available for guidance; nor does historical research help much.

That's because bull markets—like the stock market itself, which

is consistent only in its inconsistency—never have followed any set patterns. Each always differs from the one before. In only two respects do they show the slightest similarity: Often, they start and end when least expected.

Here's the performance of the 1949-52 bull market to date stacked up against 12 similar major price upswings on the New York Stock Exchange since 1900:

INDUSTRIALS					RAILROADS				
	Don-Jones Index	Gain Points	%	Weeks Lasted		Don-Jones Index	Gain Points	%	Weeks Lasted
June 1900	53.68				June 1900	72.99			
to					to				
Sept. 1902	67.77	14.09	26.2	117	Sept. 1902	129.36	56.37	77.2	115
Nov. 1903	42.15				Sept. 1903	88.80			
to					to				
Jan. 1906	103.00	60.85	144.3	115	Jan. 1906	138.36	49.56	55.8	121
Nov. 1907	53.00				Nov. 1907	81.41			
to					to				
Nov. 1909	100.53	47.53	89.7	105	Aug. 1909	134.46	53.05	65.2	90
July 1910	73.62				July 1910	105.59			
to					to				
Sept. 1912	94.15	20.53	27.9	114	Oct. 1912	124.35	18.76	17.8	114
Dec. 1914	53.17				Dec. 1914	87.40			
to					to				
Nov. 1916	110.15	56.98	107.2	100	Oct. 1916	112.28	24.88	28.4	93
Dec. 1917	65.95				Dec. 1917	70.75			
to					to				
Nov. 1919	119.62	53.67	81.4	98	Oct. 1919	82.48	11.73	16.6	94
Aug. 1921	63.90				June 1921	65.52			
to					to				
Oct. 1922	103.43	39.53	61.9	59	Sept. 1922	93.99	28.47	43.5	64
July 1923	86.91				Aug. 1923	76.78			
to					to				
Sept. 1929	381.17	294.26	338.6	318	Sept. 1929	189.11	112.33	146.3	317
July 1932	41.22				July 1932	13.23			
to					to				
Mar. 1937	194.40	153.18	371.6	243	Mar. 1937	64.46	51.23	387.2	244
Mar. 1938	98.95				Mar. 1938	19.00			
to					to				
Nov. 1938	158.41	59.46	60.1	32	Jan. 1939	34.33	15.33	80.7	40
April 1939	121.44				Apr. 1939	24.14			
to					to				
Sept. 1939	155.92	34.48	28.4	22	Sept. 1939	35.90	11.76	48.7	25
April 1942	92.92				June 1942	23.31			
to					to				
May 1946	212.50	119.58	128.7	214	June 1946	68.31	35.00	150.1	211
June 1949	161.60				June 1949	41.03			
to					to				
Date	265.62	104.02	64.4	146	Date	90.04	49.01	119.4	146

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LABOR

Industry Braces for a Steel Strike

The steel companies were back in negotiations with CIO's steel union this week, but the possibility of peacefully settling their dispute looked dimmer than ever. Prudent management everywhere was having to assume a national steel strike beginning Apr. 8.

I. The Strategy That Went Awry

The seven days before U.S. Steel and the CIO met at midweek in Pittsburgh had snarled up further a situation that was tangled enough anyway. This is what occurred:

Only 31¢ kept the public and industry members from making a majority on the Wage Stabilization Board to recommend a 17.6¢ wage increase in a one-year contract in steel. The industry members would not go beyond 14.1¢; the public members wouldn't cut below 17.6¢. To get a majority vote, the public members then turned and bargained with the labor members to an agreement that provides a 26¢-an-hour boost to be reached by January, 1953, in four steps starting with last January.

• **No Reaction**—The next day, Nathan Feinsinger, WSB chairman, visited his boss, defense mobilizer Charles E. Wilson, and told him what the board was recommending. Wilson did not react, a fact that explains Feinsinger's genuine incredulity four days later, when Wilson blasted the recommendations.

Next, Wilson and Roger L. Putnam, his economic stabilization director, flew to New York for a meeting at the American Iron and Steel Institute offices with spokesmen for the industry. Wilson is reported to have been impressed by the point that WSB was handing the union a bigger pay boost than it had ever been able to win for itself in 16 years of collective bargaining.

Without public comment, Wilson then headed for Key West. One industry representative who had been at the New York meeting told at least one outsider, "Charlie's gone down to do some bargaining with Harry Truman." But whether he had Wilson's word for this or was drawing an inference of his own wasn't learned.

• **The Blowoff**—Pictures of a stern-looking Truman talking with a serious-faced Wilson were the only news out of Key West. Monday night, Wilson returned to a rainy, windswept Washington airport, wearily faced an inquiring press corps. At first, he fended them off with

noncommittal answers to their questions. Then, just as the interview was ending, Fred Perkins of Scripps-Howard reminded him of his comment on a previous wage settlement, when Wilson had said that another one like that would torpedo inflation control. How about these steel recommendations, Perkins asked. Wilson turned to him, "I won't comment on the formula," he said. And when his voice dropped, Perkins and the other reporters thought he was brushing them off again. But after a short pause, and in the same tone, he went on:

"But I will say this—there is no question in my mind but that, if the wage increases contemplated under WSB's recommendations are put into effect, it would be a serious threat in our year-old effort to stabilize the economy. Of that I am sure."

When, two hours later the New York Times got a phone call through to Feinsinger, trying to catch up on his sleep out in Aspen, Colo., they were told, "I don't believe Mr. Wilson could possibly have been quoted correctly." Philip Murray, in Pittsburgh, found it believable enough, but had nothing to say that could be printed in a family newspaper. From Key West, there wasn't a word.

• **Taking Positions**—The next day, the industry members of WSB issued a statement that the board no longer served any useful purpose. The House Rules Committee voted an investigation of WSB. Philip Murray announced that come hell or high water he wouldn't meet Wilson. Steel companies began announcing their rejection of WSB's recommendations. Key West stayed quiet.

Wilson then issued a "clarifying" statement. His explosive words, he said, had been only "a personal opinion." WSB's recommendations "should be used as a basis for trying to work out a settlement that would prevent a strike."

But Murray wasn't having any of that. Two hours before he was scheduled to go into negotiations with U.S. Steel, he told a wildly cheering Pennsyl-

vania State CIO convention, "The steel wage case is closed." If the industry doesn't agree, there'll be a strike, he finally flatly said.

• **Price Limit**—Meanwhile, from the unhurried, unflustered, bureaucratic calm that prevailed in the Office of Price Stabilization in Washington, an observer would think steel problems were somebody else's business exclusively. No machinery was moving to consider anything more than a "Capehart Amendment" price increase for steel, which is calculated to be worth something between \$2 and \$3 a ton.

Yet the industry has made it as plain as the English language permits that, unless prices increases well beyond that are forthcoming, a wage settlement in WSB's terms won't be granted; that a strike, barring the miracle of Murray's capitulation, is inevitable. And if any stiffening of that position was possible, it came this week through Wilson's expression of "personal opinion."

How long will a strike last? That's business' big question now as it resigns itself to a strike's coming. And it's a tough one to answer. For whatever they're worth, here are two bench-marks to use for an estimate:

• **Precedents**—The present issue in steel is almost exactly like the issue that caused a steel strike in 1946. Then as now, the industry rejected a wage recommendation because it needed higher prices. The mills were shut two weeks, until Chester Bowles, then heading OPA, raised the industry's price ceiling \$5 per ton. It took that long for the pressure to get steel to over-balance the pressure to hold the price line.

But in the same year, General Motors took the position that the wage increase recommended for its employees by a government board was too high. It was prepared to settle for 1¢ an hour less than the union finally demanded. It took 120 days of strike to bring the union's settling price down.

No one thinks seriously of a steel strike lasting anywhere near that long. But if the price increase is not forthcoming, it could—unless the government moved to break the strike by using either its seizure or injunctive powers.

II. WSB's Package

With industry dissenting, the Wage Stabilization Board recommended a settlement that WSB analysts estimated would average 20¢ an hour over

an 18-month contract period, to June 30, 1953.

It would come in this way:

- 12¢ an hour as a wage increase, retroactive from Jan. 1, 1952.
- 5¢ more in fringes when the new agreement goes into effect.
- 2¢ additional as a hike in hourly pay on July 1, 1952.
- 6¢ more (2¢ in hourly pay, 3¢ in fringe pay) on Jan. 1, 1953.

WSB's public members say they consider the 26¢ in raises "fair and equitable"—and not likely to "set a new pattern or start another round of increases or fringe adjustments for industries generally." Steelworkers haven't had an increase since they got 16¢ late in 1950. Public members say they will be "catching up."

Moreover, public members say the raises "are not unstabilizing," but are possible without changing WSB rules. Of the 20¢ payable in 1952, they say at least 9¢ is due under the board's cost-of-living raise rules; 5¢ as a catch-up for steelworkers on fringes; and 6¢ as payment for increased productivity, and to bring the union into line with increases given in other industries.

The additional 6¢ in 1953 is defended as reasonable compensation for assured production for 18 months instead of one year, and as a further step to bring the union up to date on fringes.

• **Other Issues**—On nonhourly wages, the board recommended these terms:

- A reduction of the North-South wage differential from 10¢ an hour to 5¢.

- A raise in shift differentials, from 4¢ to 6¢ for the second trick, and from 6¢ to 9¢ for the third.

- Six paid holidays a year.

- Three-week vacations after 15 years instead of after 25 years.

Beginning next January, steelworkers also would get time-and-a-quarter pay for working Sundays.

WSB recommended some form of union shop in steel—with the "exact form and condition" to be determined in collective bargaining. This recommendation, short of what the union wanted, opens the way to negotiating a modified plan.

- **Third Party**—The board also recommended that annual-wage, severance-pay, and reporting-allowance issues be considered during 1952, for possible negotiation in the next contract. The board suggested unanimously that the parties enlist the help of a neutral third party on the annual-wage problem.

The board referred incentive-pay questions back to the parties, along with a batch of other minor issues. And, with CIO dissenting, it called on the steel union to withdraw demands that companies stop contracting out repair, maintenance, and construction.



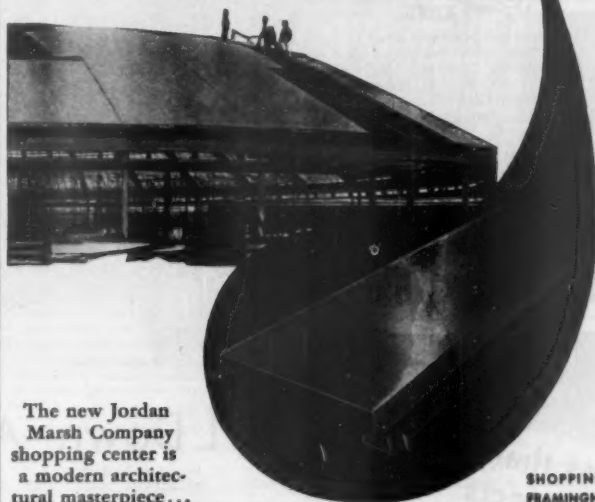
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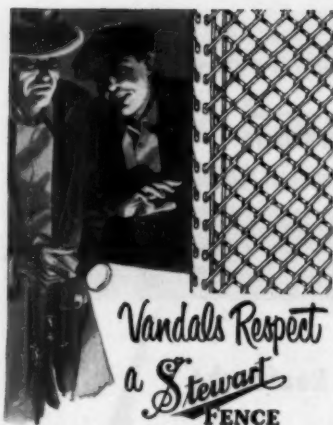
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	Total Cost of Living		Food		Clothing		Rent	
	Old	New	Old	New	Old	New	Old	New
February, 1941	100.8		97.9		100.4		105.1	
February, 1942	112.9		116.8		119.0		108.6	
February, 1943	121.0		133.6		126.2		108.0	
February, 1944	123.8		134.5		135.2		108.1	
February, 1945	126.9		136.5		143.3		108.3	
February, 1946	129.6		139.6		150.5		108.3	
February, 1947	153.2		182.3		181.5		108.9	
February, 1948	167.5		204.7		195.1		116.0	
February, 1949	169.0		199.7		195.1		119.9	
January, 1950	166.9	168.2	196.0	196.0	185.0	185.0	122.6	129.4
February, 1950	166.5	167.9	194.8	194.9	184.8	184.9	122.8	129.7
February, 1951	184.2	183.8	226.0	226.0	203.2	202.0	126.8	134.0
March	184.5	184.5	225.4	226.2	204.6	203.1	127.3	134.7
April	184.5	184.6	224.6	225.7	205.2	203.6	127.7	135.1
May	185.4	185.4	226.7	227.4	205.7	204.0	128.0	135.4
June	185.5	185.2	227.0	226.9	205.5	204.0	128.3	135.7
July	185.8	185.5	227.5	227.7	204.9	203.3	128.8	136.2
August	185.6	185.5	226.4	227.0	205.2	203.6	129.3	136.8
September	186.5	186.6	226.3	227.3	210.7	209.0	130.0	137.5
October	187.8	187.4	229.2	229.2	211.0	208.9	130.8	138.2
November	189.3	188.6	232.1	231.4	209.9	207.6	131.4	138.9
December	190.0	189.1	233.9	232.2	209.1	206.8	131.8	139.2
January, 1952	190.2	189.1	234.6	232.4	206.7	204.6	132.2	139.7

February, 1952 188.3 187.9 229.1 227.5 206.1 204.3 132.8 140.2

*BLS has revised its formula for computing the cost-of-living index (BW-Mar. 10, '51, p112). Since the old index is still widely used in labor-management bargaining, BLS will continue issuing both sets of figures at least through 1952.
Data: U. S. Bureau of Labor Statistics.

C of L Down—At Least for Now

Whatever settlement comes out of the steel wage case is almost sure to set off another round of pay demands (page 174). But this time most unions will have to plead something besides the increased cost of living. Latest Bureau of Labor Statistics cost-of-living figures show that, for now anyway, living costs are down a shade.

• **Old and New**—BLS' "old" index of living costs, still widely used in wage adjustments, began to level off in mid-January (BW-Mar. 1 '52, p126). By mid-February it had dropped from 190.2 to 188.3, or 1.9 points—the first break since June, 1951, and the sharpest since December, 1949. What caused it was the decline in food costs and smaller drops in clothing and household furnishings.

The "new" index, which accounts for changed consumer spending habits, dropped, too, in mid-February—from 189.1 to 187.9. Another moderate decline is expected in both indexes in mid-March reports, due in a month.

• **A Cut**—The drop in mid-February cut 1¢ an hour from wages of 1.15-

million railroad workers, covered by escalator contracts that adjust pay 1¢ for every 1-point change in BLS' index. Most groups covered by escalator clauses weren't affected because they have different quarterly adjustment dates.

A month ago most auto workers got a 3¢ hourly raise when the index touched 190.2. Their pay won't change again until the mid-April index is announced in May. Most electrical-manufacturing industry contracts follow the same adjustment schedule.

• **Keeping Up**—The downturn in the c of l also lowers the wage stabilization ceiling on self-administering raises. The Wage Stabilization Board lets employers adjust pay once every six months to keep up with the rise in living costs after January, 1951. A month ago employers could give 4.7% in c-of-l raises without getting WSB approval first; the current decline cuts the allowable raise to 3.7%.

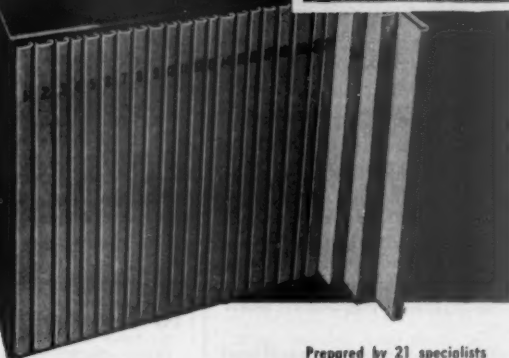
Meanwhile, BLS is planning to come out with a fully revised consumers' price index early in 1953. The new

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index will measure the effect of price changes on living costs of all urban wage earners, not just those in big cities.

The most striking difference will be in the level of the index. The base will be changed from 1935-1939 to 1947-1949. That means that the new index will probably show a January, 1953, c-o-f level of about 115 instead of 190 on the unrevised basis (the "old" index now in use).

The new index will be based on prices and buying habits in 45 to 50 cities, ranging all the way down to 2,500 population. Up to now the index has been based on 34 large cities. In the changeover, some large cities will be dropped—probably including Birmingham, Buffalo, Denver, Indianapolis, Jacksonville, Manchester (N. H.), Memphis, Milwaukee, Mobile, New Orleans, Norfolk, Richmond, Portland (Me.), and Savannah.

The price surveys for the fully revised index will take in about 40% more items. New commodity "weights" also will be used, to adjust the index to the kinds and quantities of goods and services that urban consumers are now buying.

Kentucky Union To Get Home Base

State efforts to regulate union activities headed into a new field recently. The Kentucky General Assembly passed a law requiring a union—namely, the International Union of Operating Engineers (AFL)—to establish a local in the state.

The law doesn't mention the IUOE by name, but provides that any union with 100 or more members in Kentucky must establish a local to act for them. As far as is known, only IUOE will be affected, and the bill was admittedly aimed at it.

The operating engineers' union has 2,000 members in 116 Kentucky counties, the sponsors of the new law told the General Assembly. All are under the jurisdiction of the union's Evansville (Ind.) Local 181.

• **Home Defense**—The new law isn't aimed at encouraging unionism, or getting another union in Kentucky. It's a defensive move. IUOE has been involved in much of the recurrent construction labor trouble at the Paducah atomic-energy project. A frequent complaint in walkouts has been that the Evansville local placed Indiana members in project jobs while Kentucky members stayed jobless.

Under the new legislation, IUOE would be forced to give Kentuckians a local of their own—and, through it, a first chance at jobs.

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AFL Capitalists

Union went into the insurance business to see how management lives. Now it controls three companies.

Texas AFL unions and individual members took over a third commercial insurance company this month. What had started out as an educational program appeared to be turning into a solid business enterprise.

A year ago officers of the State Federation of Labor (AFL) in Texas decided that owning some corporate stock would have real educational value. It would help members to understand what happens on the management side of business. The Insurance Co. of Texas was picked as the best stock-purchase opportunity.

• **Buying a Voice**—It's nothing new for a union to buy in to get stockholder rights in companies with which they bargain. That's widely done. And some unions with large welfare funds invest in blue-ribbon stocks.

Also, AFL is already in the insurance field. It set up the Union Life Insurance Co. in 1925, primarily to handle insurance for AFL unions. Matthew Woll, an AFL vice-president, heads it.

• **Educational**—However, it was the educational angle that was stressed by Texas AFL officers in June, 1951, when they urged their state convention to authorize purchase of two-thirds of the stock of the \$200,000 insurance company. They did also point out that unions and individuals could "make a profit from a company of their own, carrying their own insurance." The convention O.K.'d the deal.

State officers then set out to get AFL locals and members to buy shares. Limits were set on purchases: No local could get more than 500 of the company's 20,000 shares; no individual more than 250.

By last Labor Day the original stock had been sold.

• **Same Management**—Jack Cage & Co., from whom the controlling interest was bought, was retained to manage the company. Capitalization was raised to \$400,000 in December and \$600,000 last Mar. 6, to provide funds for expansion.

First, the AFL's Insurance Co. of Texas, which had fire and casualty lines, took over the Home Life & Accident Co., primarily a credit-life insurer. The union-controlled firm sold the credit-life business and the Home Life name, then set up what was left as the Life Insurance Co. of Texas, a life insurance subsidiary.

This month Insurance Co. of Texas

bought 73% of the outstanding stock of Continental Fire & Casualty Co., licensed to operate in Texas and 14 other states.

All three companies formerly were owned by Jack Cage & Co. All are old-line legal reserve firms, supported by the traditional agency system. Their total assets are reported at \$3-million.

• **Profitable**—So far, on paper at least, the project has been profitable. Stock bought originally at \$20 has been selling for \$22.

Hiring Doctors ...

... doesn't make them employees, says court. BIR will appeal ruling that affects payroll taxes.

Is a company doctor an employee, subject to federal social-security and employment-insurance taxes? The Bureau of Internal Revenue says yes. If that tax view were upheld, it could bring thousands of doctors, attorneys, and professional consultants under the payroll taxes. But BIR has lost the first round of its case in a recent test suit in federal court, Cleveland.

Willard Storage Battery Co., in Cleveland, paid \$3,403 in social-security and employment-insurance taxes on seven company doctors between 1943 and 1947. In July, 1949, it sued to recover the money, contending that the doctors weren't really employees. The case was heard last fall. The court has handed down a decision for Willard.

• **Monthly Payments**—The case turned on whether the doctors had a legal employee-employer relationship with Willard. BIR said they had because (1) the company paid them agreed-upon annual sums, in monthly payments; and (2) it treated them as employees when it handed out Christmas turkeys or other special bonuses.

The court accepted Willard's counter-argument, that the doctors were on retainers and had no set employee relationship. The decision explained:

• The doctors had private practices and got more income outside than from Willard.

• They had scheduled hours at Willard's clinic, but could come and go at will when private cases required their close attention.

• They acted in accordance with standard medical practices, not on company orders.

• They made reports to the company, but were not supervised to an extent where they were under company control.

BIR attorneys announced they will appeal the court decision.



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URW PRESIDENT Leland Buckmaster (left) points to past gains as . . .

Four-Day Workshop Briefs Staff . . .



. . . On Union's 1952 Wage Drive

The United Rubber Workers (CIO) set the stage for its 1952 wage drive at a conference last week of its 200-man policy committee—then held a four-day workshop to bring the union field staff up to date on the industry and union, and to brief them on the future.

What URW will seek in wage increases this year will be patterned closely after the settlement in the steel industry. The wage-policy committee set

no demand figure in its session, although a 10% increase (18¢ to 21¢ an hour) was mentioned in discussions.

The rubber union has 1952 negotiations with two of the "Big Four" in the industry. Its B. F. Goodrich Co. contract runs out June 30, and its Firestone Tire & Rubber Co. agreement July 10.

• 100% Union?—With both of these companies, the union will stress a de-

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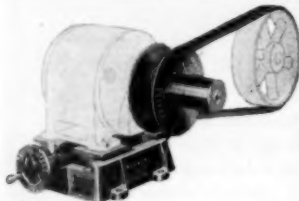
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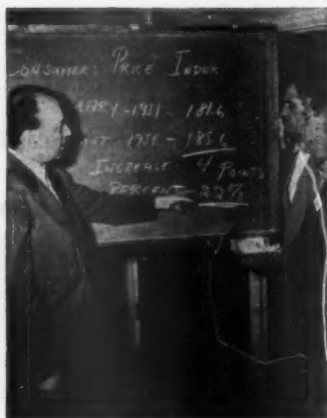
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. . . MOVIE PROJECTORS brought the staff up to date on their union activities.

mand for a "complete" union shop along with economic demands. Goodrich and Firestone now have a modified union shop.

URW will also ask for increased pension benefits (now \$100 a month, including social security) and additional insurance coverage. And the union will renew an old demand for an end to area differentials in wages.

• **Class Reunion**—After the wage-policy committee adjourned, URW's 65 field men from 33 states and two Canadian provinces convened for the first time since 1940. The conference—which looked very much like an industry sales or staff meeting—brought together seven union district directors, five time-study experts, three field auditors, and 50 field representatives.

Top URW people, including president Leland Buckmaster (picture, page 180), drilled their union aides for four



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OPEN DISCUSSIONS of the rubber union's future policy gave everyone a chance to air his pet theories, argue with the experts, and bring up his own problems.



GROUP DISCUSSIONS got down to brass tacks such as how to live with Taft-Hartley and the Wage Stabilization Board, race problems, and the economics of the rubber industry.

days on latest economics facts, labor regulations laws and techniques, and political strategy. For good measure, they tossed in practical demonstrations in the use of radio and television, motion-picture presentations, and other visual aids.

The research department presented charts showing the growth of URW from 1940 into a "mature" union with 200,000 members; picturing the economic gains for workers in union contracts—79¢ an hour, including "fringe" benefits, in the last six years.

One field man commented that the charts show "we are big, successful, and hungry."

• **Behind the Scenes**—Most of the meat of the workshop bill-of-fare came in closed sessions. In these, union leaders took up specific problems encountered in doing business under Taft-Hartley and with the Wage Stabiliza-

tion Board; URW's 1952 economic program and ways of getting public support for it; the economics of the rubber industry; the industry's race problems and the need for a fair-employment-practices law; and what union leaders called the failure of Congress to enact "adequate" price and anti-inflation measures.

Some of the discussions behind closed doors indicate URW's 1952 wage drive will be based more on company earnings than on living costs. Members of the union's 17-man executive staff repeatedly stressed "fabulous" profits of rubber and allied industries in 1951.

Rubber workers should share in these profits, Buckmaster told staff men, because "industry figures show a 4% annual increase in productivity over the past few years—a rate higher than in most industries."

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3. Think a fireproof building is sure-fire protection? Actually, such a building just walls-in a fire that starts in your office . . . makes it even hotter!



4. Think your fire insurance would cover every loss? Not unless you can prepare a proof-of-loss statement. Could you, without your records?

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LABOR BRIEFS

New NLRB member Ivar H. Peterson holds office this week, succeeding James J. Reynolds, after being confirmed by the Senate without a fight. Former aide to Sen. Wayne Morse, Peterson is considered a liberal in views (BW—Jan. 12 '52, p. 32).

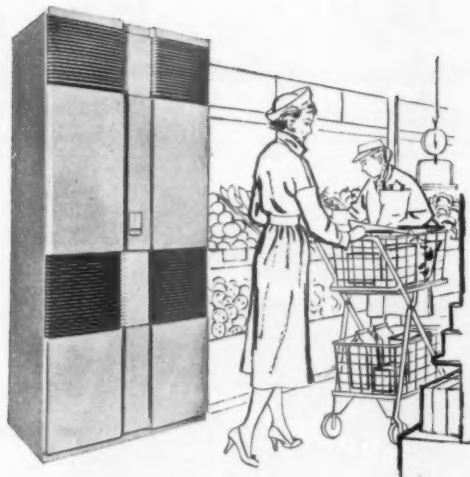
A \$38,090 judgment against the Mine, Mill & Smelter Workers and in favor of Empire Zinc Co. is an aftermath of MMSW's long Hanover (N. M.) strike. Union was found guilty of contempt of court for violating a picketing ban.

Savings aren't earnings, according to an NLRB trial examiner. A firm ordered to restore jobs of a group of mothers, with back pay less any income during the layoff, asked to be credited for money the mothers would have had to pay for care of their children during working hours. The plea was rejected.

One-way escalator is provided in a two-year contract just signed by Minneapolis-Honeywell and CIO's electrical workers. Pay will be adjusted—upward only—twice in 1953 if living costs rise. A 16¢ "package" settlement also includes a pension plan, with vesting and funding, and a guaranteed eight hours' pay for anyone called in and then released due to lack of work.

Increased duties in CIO's auto union led John Livingston to resign last week as labor member of WSB. Livingston recently took over leadership of UAW's General Motors Division in a union shakeup that ousted T. A. Johnstone from the GM job (BW—Feb. 23 '52, p. 39). Livingston is also head of UAW's Aviation & Agricultural Implements Division.

The Pictures—Cover by Jon Brenneis, Cal-Pictures. Peter Besh—82 (bot.), 84; Black Star—82, 136, 137, 138; Blackstone Studios—36 (rt.); Stan Brams—135; Cal-Pictures—90, 143 (bot.), 152; Harris & Ewing—36 (lt.), 94 (lt.); Squire Haskins—64; Int. News—23 (rt.), 130; Karsh—44 (rt.); Keystone—23 (ctr. top); Bob Purdy, Associated Photographers—72, 73, 74; Standard Oil (N. J.)—128; Swiss Gov't. Tourist Office—192 (lt.); Tennessee Eastman Co.—145; United Press—23 (lt.), 24-25 (top), 25 (bot. rt.), 26, 94 (rt.), 128; Watchmakers of Switzerland—192 (rt.); Wide World—20, 21 (lt.), 23 (ctr. bot.), 24-25 (bot. rt.); Dick Wolters—44 (lt.).



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INTERNATIONAL OUTLOOK

BUSINESS WEEK
MARCH 29, 1952



The U. S., Britain, and France have come back with a sharp answer to Stalin's bid for a rearmed, unified, and neutral Germany (page 23).

The Western powers say that German unity must be based on:

- (1) U. N.-supervised elections in Eastern Germany.
- (2) Formation of an all-German government before peace treaty talks.
- (3) Freedom for a united Germany to join NATO.

These demands will be hard for the Kremlin to swallow. Some U. S. officials think they will stop Stalin in his tracks.

But Moscow has gone so far now with its new German strategy that it probably won't turn back.

By proposing free elections supervised by the Big Four plus some neutrals, instead of the U. N., the Russians could get a lot of support in West Germany.

At the very least they would slow down our plans for integrating West Germany with NATO. And they might be able to disrupt things completely.

As European observers see it, the West must go far beyond this week's diplomatic counter move.

These observers say that the West—and that means mainly the U. S.—must offer the Germans a partnership that promises (1) military security; (2) stable foreign markets; and (3) full equality before long.

Otherwise, the Germans won't think much of their long-run prospects in the Atlantic community.

To Western Europe, American policy looks decisive.

The area is threatened today with an economic slump and currency troubles. Neutralism is sure to grow unless the U. S. comes through soon with more economic aid and then shifts its economic policies over the next year or so.

What bothers Europe most is the pressure the U. S. economy exerts on the whole Western world. Many European economists think the U. S. must:

- Lower prices on government-supported U. S. farm prices.
- Open up the U. S. market to European goods.
- Limit the expansion of civilian industry during the rearmament period, thus lessen the pressure on world raw material prices.
- Boost government loans abroad, plus private overseas investments.
- Keep government buying of things like wool, tin, and rubber on an even keel, so friendly economies won't be hurt again as they have been since Korea.

The Administration now hopes that its \$7.9-billion foreign aid bill won't be cropped more than \$1-billion by Congress. A couple of weeks ago, political prophets feared much larger cuts.

The rush to the Eisenhower bandwagon is one reason for the revived hopes. Officials think Ike's appeal to U. S. voters will shake the Congressional conviction that people are fed up with foreign aid spending.

Last year President Truman saved his economic aid request by trotting out Eisenhower himself to plead for it.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

MARCH 29, 1952

But Mutual Security Administration officials hope that Truman will send Defense Secretary Lovett into the lists—to ask Congress to cut military aid before cutting economic money.

It's not certain that Lovett would follow through. He's under strong pressure from military brass not to allow any more military cuts. And rumor has it that Lovett privately agrees with Secretary of the Treasury Snyder that economic aid in an election year is bad politics.

Don't rule out the chance that the Russians may make some real trade concessions to the West, along with the propaganda, at next week's economic conference in Moscow (BW-Mar, 15'52, p180).

The West's trade controls are hurting the Soviet-bloc economy. Iron Curtain imports from the outside world are down one-third since 1948, with the squeeze tightest on raw materials and machines.

So the Communists may try to open the door by offering to buy surplus Western soft goods with gold.

The purge in Czechoslovakia may be moving toward a climax. Moscow wants its most "westernized" satellite nailed down for good this year.

The Czech army is being reorganized as Poland's was, with Soviet officers in all the top slots. The expected resignation of Czech premier Zapotocky would be the signal to shake up the entire Prague government, put it under Soviet military and civilian direction.

One possible interpretation: Moscow is battering down the hatches to avoid serious trouble if Germany is unified—and armed.

The Churchill government finally has a plan to denationalize steel. Here's what the Conservatives will propose:

- Liquidate the state steel corporation that now owns the industry. Then set up an agency to sell steel stocks to the public when the market is receptive.
- Revive the iron-steel supervisory board, composed of management, union, and public members. The board will oversee long-term capital development, initiate new capacity if the industry balks at expansion.

Reselling British steel stocks will be a long, hard task. But a start—with the most popular securities—is likely next fall.

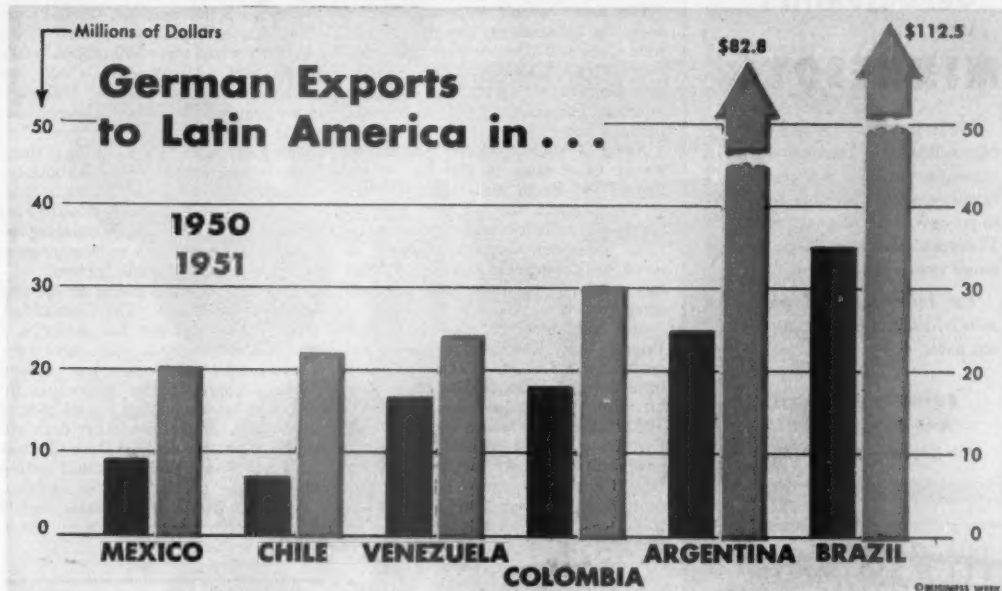
French Premier Pinay's conservative financial program is reviving the franc. Black market prices for gold and foreign currency are slipping steadily downward.

Pinay's plans meet their first test next week in the Assembly. Chances are they'll get by. But the real answer will come later. The program hinges on three things: (1) bringing hoarded capital from hiding into productive employment; (2) the public response to new government loans; and (3) the amounts recovered from repentant tax dodgers.

Dissolution of Egypt's parliament and the prospect of new elections haven't raised Washington's hopes for an Anglo-Egyptian settlement.

The fanatically nationalist Wafd party's political grip on Egypt hasn't been shaken. U.S. experts are sure the Wafd will win a free election hands down. If the election is rigged, the Wafd might paralyze the country with strikes and terror, as it did in 1946.

BUSINESS ABROAD



West German Salesmen on the March

From the Rio Grande to Cape Horn, salesmen for West German industry are on the road in Latin America. More often than not, they're returning home with pockets stuffed with orders. Even where they don't get the business, they're renewing old contacts with Latin American businessmen, setting up sales outlets, doing patient spadework for the future.

Here's a grab-bag of facts and statistics on the resurgent German trade with the Americas:

- In 1947 West Germany sent less than \$400,000 worth of goods to Latin America. Last year sales scooped up to \$350-million.

- Though it's crowding British sales (at \$450-million), increasing German trade hasn't even dented the U.S. control of the market (1951 sales: \$3.5-billion). But the prospect of a market "shared" more and more with Germans is real. Their goods parallel U.S. and British exports—motor vehicles, chemicals, machine tools, pharmaceuticals, etc.

- Here and there, U.S. and British bidders have lost fat contracts to Germans. And Germany is signing cosy barter agreements with some of the Hemisphere's biggest buyers.

- So far, direct German investment in Latin America is almost nil. But

there are plans afoot that may bring some important German factories to countries like Brazil, Argentina, or Colombia.

Over-all, West Germany is rapidly regaining its prewar niche as one of the world's great trading nations. Last year exports hit \$3,470-million, a thumping 75% increase over 1950. Sales to the U.S.—at \$236-million—were up 130%. Germany's imports, at \$3.5-billion, were up \$800-million over 1950.

West Germans have been able to deliver the goods. They have an ample labor pool, willing to work hard for long hours at fairly low wages. There has been good demand for German manufactures, no rearmament orders to use up export potential.

For the future, expect increased German efforts to sell south of the border. Restrictions on intra-European trade and sterling area imports will force the Germans to look to greener fields. And even if German industry becomes harnessed to Western defense, cutting steel for export goods—or if a recession in demand pares Germany's sales abroad—traders expect West Germans to hang onto their newly won markets tooth and nail.

There has been only one important change in the prewar pattern of German trade: Commerce with Eastern Europe

is down to a trickle. Elsewhere, the goods are the same; and, outside Western Europe and the sterling area, Germany has continued its habit of signing bilateral, "barter" trade agreements. These are especially important in Latin America with good German customers like Colombia, Argentina, Mexico, Brazil.

A new deal with Colombia—signed in December, effective last week—is an example. It calls for an exchange of \$45-million worth of goods each way, brings Germany up to the rank of second-largest supplier and customer after the U.S. A "swing" or credit margin of 25%, \$11.3-million, is included in the deal to take care of seasonal fluctuations in the rate of shipments and payments.

The "swing" arrangement eliminates the needs for transferring funds or currency except where the swing or credit is exceeded. Here's how it works:

Each country sets up an account in the other's central bank. If, say, a German chemical manufacturer is selling in Bolivia, he gets paid in Deutsche Marks from the German bank. The Bolivian account in the bank is debited; Germany's account in Bolivia is credited. It works in reverse for a Bolivian businessman sending hides to Germany.

The beauty of it is that the trade

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partners skirt currency shortages and exchange regulations. But these deals tend to dam the free flow of world trade into hard-and-fast bilateral barter schemes.

Germans haven't depended exclusively on bilateralism, however. Trade with Cuba and Venezuela, the only two major Latin American nations dealing with Germany on a free dollar basis, has increased in spectacular fashion over the past few years.

Some of West Germany's healthiest export gains came in the big prewar markets of Brazil and Argentina. In terms of goods, the big play went to chemicals, vehicles, and machinery.

In Argentina, Germany climbed in seven years from dead last as a supplier and customer to a fat fifth in both categories.

It's true, however, that U.S. and Britain have lost out on individual deals here and there. A German group headed by the Siemens interests made off with a \$32-million contract for a 300,000-kw. powerplant; both General Electric and Westinghouse are said to have actively sought the order. A big British loss may be in the field of transport; Argentina was reported last week to be ready to sign with German manufacturers for 700 electric trolley buses on which Britons had bid.

Over the past few months, however, German trade with Argentina has slid way off. There's a 1951 trade agreement calling for an exchange of \$154-million each way. But the only commodity of which the Argentines have an important export surplus is wool; Germans don't seem very interested in it.

West Germany is doing better and better in Brazil, but has a long way to go before it will regain its prewar rank. In 1938 Germany was Brazil's largest supplier, even a shade ahead of the U.S. For the first half of 1951, West Germany's share of the market was only 3.2%. But that's up from a trickling .5% in 1949.

In the important German export classifications—autos, machine tools, other machinery—Brazilian buying jumped way up last year. Brazil tripled its 1950 imports of German cars and small buses, bought 3,528. It took five times as many machine tools—about \$5-million worth. Other machinery purchases hit \$42-million, up from \$15-million in 1950. That same kind of increase in autos and machines is reflected in Argentina and Mexico, and among smaller buyers like Chile, Colombia, Uruguay, Peru. For chemicals, in the first six months of last year Germans sold more in Latin America (\$5.5-million worth) than in the whole of 1950.

• **Investment**—So far, German businessmen haven't been rushing to set up plants in Latin America. For one thing, there hasn't been enough capital at

home, let alone for export. For another, the memory of World War II expropriations tends to make Germans gunshy on Latin American subsidiaries.

Argentina, for example, belatedly declared war on Germany in March, 1945, promptly seized some \$80-million worth of property. As yet, there's been no settlement. Besides land and buildings, many countries took over German trademarks and patents. Though some Germans have succeeded in getting them back, others have to try to do business with new brand names while their local competitors use the old, established German ones. Besides discouraging investment, the wartime memories are a potential source of trade friction.

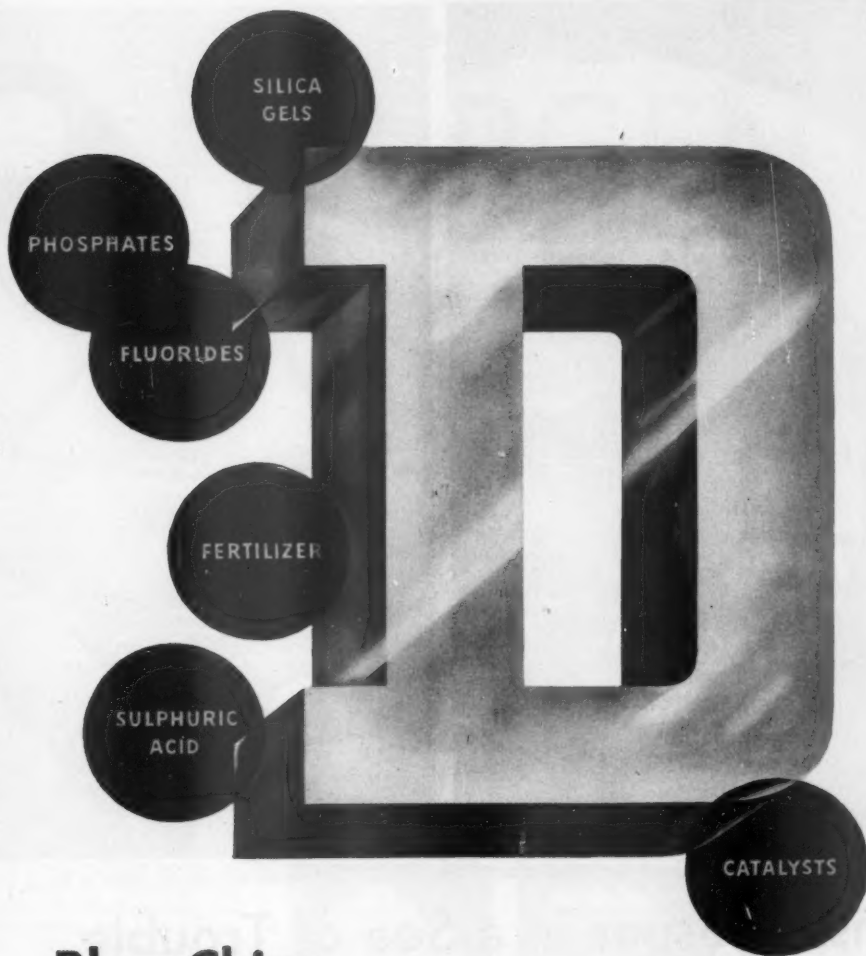
An exception—and maybe an opening wedge—is in Brazil. The Duesseldorf firm of Mannesmann has activated a Brazilian subsidiary to make steel pipe. There's little or no German money involved. Six Brazilian banks and investment houses put up a good part of the capital. Meantime, other deals are in the talk stage. At least three German auto makers are thinking about setting up assembly plants in Latin America, probably in Brazil. In Colombia, there's a report of a possible German investment in textiles.

BUSINESS ABROAD BRIEFS

Texas' King Ranch, the world's largest, is going into business abroad. It has teamed up with Australian cattlemen to form King Ranch Australia, will set up a foundation herd of King's prized Santa Gertrudis cattle. The first shipment—200 head—leaves in June.

• **Oil World:** Canada Southern Oils, Ltd., has come up with Saskatchewan's first important discovery of light oil. . . . There's talk of "gigantic" underwater oil deposits off the coast of Trinidad, B.W.I. Kern Trinidad Oilfields, Ltd., a British-U.S. outfit, says it will start offshore drilling soon. . . . Brazil's National Petroleum Council plans a small (2,000 bbl. daily) oil refinery 1,000 miles up the Amazon River at Manaus. . . . First large-scale exploration to extract oil out of Alberta's tar sands starts this summer. There are billions of barrels in tar sands 100 ft. to 200 ft. thick, ranging over 10,000 sq. mi. Problem: to separate the oil from the sand economically. Five Canadian companies, Swedish engineers, Socony-Vacuum, and Sun Oil Co. will see what they can do.

• **Quaker Oats Co.**, Chicago, plans a factory in Brazil, has asked the government there for exemption from import duties on machinery needed for the plant.



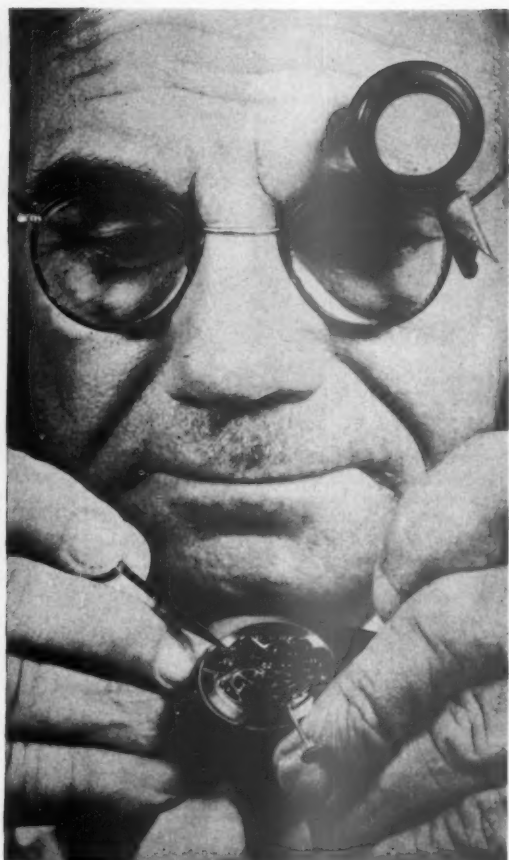
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Swiss Prosper in a Sea of Trouble

Europe's postwar crisis still shows no signs of letting up. The continent is split by the Iron Curtain; most of the countries of Western Europe are plagued by economic and political difficulties. Yet, in the very center of Europe, a country of only 4.7-million people—Switzerland—is sitting pretty.

Switzerland today is a stable and prosperous island in a world of bankrupt or near-bankrupt nations. It has the hardest currency in the world. Its gold reserves reached a point late last year where the government decided that it was time to operate a free gold market. Switzerland is one of the few countries of the world with an international banking system and surplus capital to invest abroad.

• **Few Assets**—The Swiss have achieved this enviable position without any obvious economic assets except some fine mountain scenery, lots of water

power, and a very limited amount of fertile land. The country must import all its raw materials and two-thirds of its food. Its position in the center of Europe makes transport costs high.

What the Swiss have done is to turn what look like physical disadvantages into assets. They have used their central position to become a commercial crossroads between Western and Eastern Europe and between Germany and Italy. Switzerland's traditional neutrality has saved it from the devastating war losses that its powerful neighbors have suffered, especially in World Wars I and II. The job of international middleman has paid off in both war and peace.

• **Eastern Trade**—Today Switzerland trades without any qualms with the Soviet bloc. Last year exports to the Iron Curtain countries, not counting Russia, totaled about \$50-million, or

more than a third of Swiss sales to the U.S.

• **Tourists**—What's more, the Swiss have turned their mountains and lakes, which take up a good part of the country's 16,000 square miles, into the main attraction of a worldwide tourist industry. And the Swiss have built up export industries that use a minimum of raw materials and a maximum of skilled labor.

With history and geography pushing their country into this kind of role, Swiss bankers and traders have taken advantage of the habits of hard work and thrift traditional in Switzerland. These habits have provided an accumulation of capital that is used profitably abroad.

The Swiss haven't succumbed to mid-20th century ideas of government-owned industry or welfare economics. Private business, as a social institution,

is probably more deeply entrenched in Switzerland than in the U.S.—though it operates in an economic climate that smacks as much of the medieval guild as of free competition.

• **Third of Product**—Switzerland lives by foreign trade, to an even greater extent than Britain. It must export a third of what it produces, plus services and capital, to pay for essential imports. So a look at the way it balances its foreign accounts reveals many of the basic facts of Swiss economic life.

Last year Swiss imports reached a record 5.9-billion francs, or nearly \$1.5-billion. (The Swiss franc is worth 23¢.) In terms of population, that makes Switzerland the biggest per capita importer in the world. Its purchases were about equally divided between food, raw materials, and manufactured goods.

But Switzerland was well able to afford this record volume of imports. Its exports in 1951 were also at a peak—4.7-billion francs. And the country more than made up the gap in its merchandise trade with invisible exports—tourist income, profits from foreign investments, and receipts earned by its banking, insurance, and trading companies.

• **"Nation of Hotelkeepers"**—The tourist industry is one of Switzerland's biggest producers of foreign exchange. During the last couple of years the average earnings of the Swiss tourist industry have been about 500-million francs. In 1951 over 2-million foreigners visited the country. Of this total, about 1-million came from Britain and about 280,000 from the U.S. Because of currency restrictions, there will be far fewer Britons this year. But U.S. and Swiss travel agencies expect to see the number of American visitors go up.

• **Investment**—The Swiss have long had investments abroad that return a sizable income. The business seems to have started several centuries ago, when Swiss soldiers hired themselves out as mercenaries to foreign princes. A good part of their wages was either used for economic development in Switzerland or left in foreign lands for investment.

Today the Swiss are accumulating enough capital to meet far more than their own investment needs. In 1950 the aggregate resources of the Swiss banks (not counting the National Bank or other public institutions) was 27-billion francs, or more than \$6-billion. That amounts to 5,700 francs per capita. Today there are more than 5-million savings books in circulation, or better than one book per person. The average savings account is between 1,500 and 2,000 francs.

With savings so abundant, the Swiss are seeking outlets for investment abroad. Here are the countries that look most attractive to them: Belgium and the Belgian Congo, South Africa, the

The need for SCRAP—your SCRAP—is

URGENT

Recently the **NEW YORKER**, a sophisticated magazine that usually surveys the American scene with a humorous eye, devoted almost a page to tell its readers in deadly serious vein how badly iron and steel scrap is needed. That's how important this subject is to everyone in America.

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2000 steel company salesmen and more than 5000 steel warehouse salesmen are ringing manufacturers' doorbells all over the country, asking them to dig out their scrap and get it to the mills.

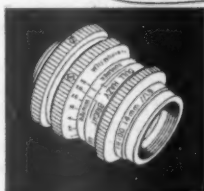
Chambers of Commerce in more than 2000 communities have organized their members and fellow citizens to beat the bushes for more iron and steel scrap.

The scrap shortage is a National emergency—it needs everybody's help—it especially needs yours.

For it is you men—the top executives of America's industry—who can do most to get out the dormant scrap that the steel mills must have to prevent steel production from falling off. Only you have the authority to declare what tools and equipment in your plants can be scrapped.

So we're asking you to personally comb through your shops and factories to make sure that not a single pound of dormant scrap is overlooked. And when you're in doubt whether or not to say "Scrap that stuff" remember that every old machine, every piece of equipment and every steel structure that isn't needed, actually represents four times its weight in terms of new steel. Turn it in for scrap. It means more steel turned out, and the more steel that's made, the more steel you'll get.

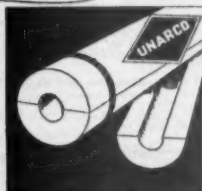
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*These Scrap Drive reports are excerpted from letters to the American Iron and Steel Institute, Committee on Iron and Steel Scrap.



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"... industrial wages are fairly high; so is productivity ..."

SWISS PROSPERITY starts on p. 192

U.S., Brazil, and Canada. Since the war more than 250-million francs have been loaned to the Belgians and 100-million francs to South Africa.

Private investment houses as well as Switzerland's big three commercial banks—Credit Suisse, Swiss Banking Corp., Union Bank of Switzerland—are involved in making investments in the U.S., Canada, and Brazil. In June, 1951, Credit Suisse, which has been active in New York for some time, opened a branch in Montreal. A few months later the Swiss Banking Corp. followed suit. Union Bank is now reported to have a stake of over \$70-million in U.S. and Canadian investment trusts.

• **Agents**—The Swiss banks aren't merely investing Swiss money, of course. They act as agents for financial interests in France, Britain, and other foreign countries. Switzerland has long been a depository for foreign capital. That's partly because of its geographical position—at the intersection of trunk line railways and highway routes. It's also because Swiss banks have long had a reputation for reliability and Swiss courts a reputation for impartiality.

The Swiss also are active in the international insurance business. The Swiss Re-Insurance Co. of Zurich, which reinsures the risks of foreign insurance companies, is the largest institution of its kind in the world. Its premium income is well over 500-million francs a year.

• **Accent on Labor**—When it comes to exports, the Swiss concentrate on products that involve a lot of skilled labor. In some cases, the cost of raw materials amounts to only about 5% of total production cost; most of the remaining 95% represents skilled labor.

The watch industry is a good example. This is one of the oldest established industries in the country. It got started in Geneva during the 16th century.

Last year Switzerland sold abroad 36.1-million pocket and wrist watches, worth 928-million francs. Counting watch parts and movements, the industry's foreign sales were just over 1-billion francs. That was 95% of the output of 55,000 watchmakers.

• **Metalworking**—Exports from the Swiss metalworking industry outrank watches, however. Foreign sales of machine tools, textile machinery, electrical equipment, and other kinds of machinery (including instruments and apparatus) reached almost 1.3-billion

francs in 1951. That was nearly one-quarter of total Swiss exports.

Engineering firms like Brown, Boveri & Co., Oerlikon Machine Tool Works, Sulzer Brothers, and Buehler Brothers have a worldwide reputation. Since the war Brown, Boveri has broken into the American market for electrical generating equipment. Yet all these firms produce pretty much on a handmade basis. Brown, Boveri, the largest employer in Switzerland, has only 8,000 workers.

• **Silk and Cotton**—The textile industry flourished in Switzerland as far back as the 14th century, when it produced mainly fine silks. By the 19th century it was concentrating on cottons, and today high-grade cotton goods form the bulk of Swiss textile exports (500-million francs in 1950). It was the textile industry that led the Swiss into production of machinery. Early in the 19th century they began producing textile machines, later branched out into a whole range of machinery.

• **Long Hours**—The Swiss have a tradition of hard work that's unmatched in Europe, except perhaps in Germany. In 1919 the Swiss cut down to a 48-hour week, and they have never reduced that figure. Almost everybody in the country works long hours—from top government officials and bank presidents to bellhops and kitchenmaids. Leading industrialists are at their desks by 8 a.m., and they seldom leave before 6 p.m.

By continental standards, industrial wages are fairly high. But productivity is high also, and labor-management relations have been good for many years. In 1937 the largest union in the country—the Swiss Metalworkers and Watchmakers Union, with 200,000 members—signed an agreement with the employers that contained a "peace clause." This clause binds both sides to act "in sincerity and good faith" and provides that all disputes shall be settled by arbitration. This agreement is still in force.

• **Regulation**—There is a lot of regulation of Swiss industry and commerce by the professional associations within each trade—as well as by government. In most industries new firms can't start up without a special permit from the association. And this is as true of the cheese industry as it is of the metalworking industries. Retailers in Switzerland usually operate under market-sharing deals.

Swiss agriculture, too, is highly protected by a government price policy that rigs prices heavily in favor of the farmer. This is partly due to a highly organized pressure group of Swiss farmers. But it's also because the majority of the Swiss people believe that it's important to check the drift to the cities and keep at least a minimum home production of food.

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Red Trade Offensive

Stalin has a good many strings to his bow.

He may try open aggression in Korea, open political activity in France and Italy, or espionage and subversion—anywhere. A new emphasis is now being given to trade penetration in areas still to be brought in line. It is a threat to the trade of the free world, especially our own.

In a recent issue, *Export Trade and Shipper*, weekly business magazine for export executives, devotes a good deal of attention to this aspect of the Communist world offensive. Russia and some of her satellites, it is now evident, are making a real drive in several of the countries of South and Southeast Asia to sell machinery and agricultural equipment—even though these items are in short supply at home. Goods are available “out of stock,” and payment in strategic raw materials or in soft currencies is agreeable.

The Soviet campaign is cleverly tailored to the needs of India, Burma, Ceylon, Japan, and other nations in that part of the world. Price seems no object. Soviet representatives last November offered Japan coal mined in South Sakhalin at one-third the U.S. price.

Soviet state trading as a tool of economic warfare is conducted without regard to cost, demands at home, or other economic considerations. Millions of Russian and satellite people are working without pay in slave labor camps at what amounts to a bare subsistence living standard, producing goods to compete with the products of free labor in the markets of the world.

While the Russian worker in many cases cannot afford to buy a pair of shoes, the Soviets are offering to sell Russian-made shoes at competitive prices in the markets of the Near East. *Pravda* is being published in four pages because newsprint is short, and yet the Soviet government stands ready to sell thousands of tons of paper to Argentina and other countries. In 1946-47 the Kremlin, in the face of short harvests, was willing to turn famine loose at home in order to ship grain for political reasons to France and Italy.

American businessmen engaged in foreign trade in these areas know this ominous story. It is time the rest of us knew it, and took steps to mobilize our defenses against this part of the Communist offensive throughout the world.

Boss and Bosses

Business management consists of a lot of things. But the control of machines, material, and men is a big part of the job. The control process goes on all through the chain of command with different problems bobbing up at different points in the chain.

The Research Institute of America shows what some of these differences are. What worries the top office may

be brushed off by the foreman, and vice versa. “How to watch costs,” for example, comes third on the top office list, but only seventh for the supervisor.

The two groups spread far apart on the active issue of working under pressure. “How can you get people to accept the fact of urgency, and meet the challenge?” is fourth on the foremen’s headache list, but the top office rates it a surprisingly low thirteenth.

In some things, the two groups come close. “How to build initiative” ends up second on both lists, a reminder that this is a key problem in industry and out. It grows harder as American life gets more organized and controlled. And by that very fact it becomes more urgent if the economy is going to keep up and improve its magic productivity.

Top on the list for the foreman is “How to read the employees’ mind, how to know what’s eating them, how far they understand policies.” Top for management is “How to give orders.” Each question mirrors concern about the group lower down. The questions pinpoint the fact that the human element remains the key variable in the whole industrial equation.

This kind of research into the headaches of the front office and the foreman should flood-light some dark management corners. The foreman is industry’s top sergeant. His woes are his own, but the front office needs to know what they are.

Santa Take Notice

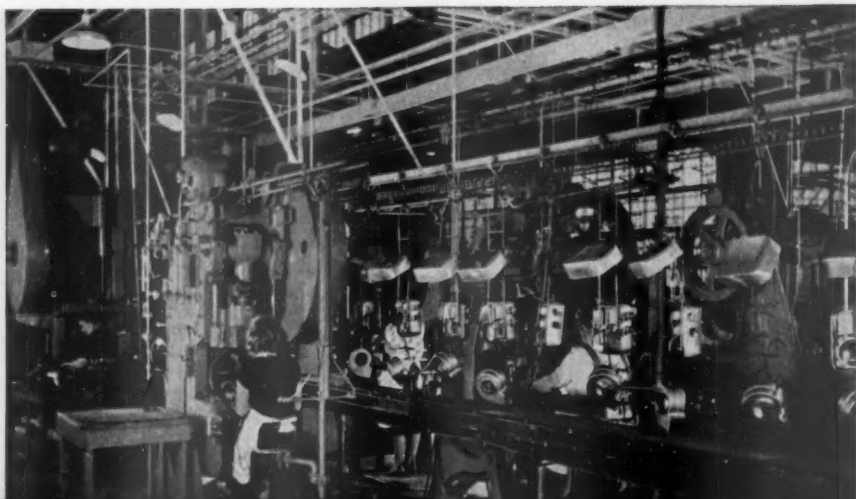
Big Government flourishes on the two-branched theory that everybody wants a government hand-out, and therefore nobody will shoot Santa. By and large, the theory has had a good deal of confirmation these last years. But Bill Porter, New Mexican rancher, disagrees with it all. His recent advertisement published in the *Las Vegas* (N. M.) *Daily Optic* suggests that the idea may be developing holes.

Porter’s ad says, “I wish to take this means of thanking the taxpaying citizens for constructing a lake on my ranch at Watrous. . . . I have just received authorization of payment of \$474.10 from the government under the PMA program, which sum was received for improving facilities at my ranch—something which I no doubt would have done myself.

“Next year, I am informed, I will be entitled to a payment of \$2,500 for continued government approved practices on my ranch property. I regard the government’s interest in my ranch as a profitable enterprise.

“I would like to remind you taxpayers that this expenditure is necessary because the President himself has said that he has cut the budget to the bone, leaving only essential expenditures. Again, thanks, taxpayers, although you might not realize you are making this windfall possible.”

Santa’s Washington office, please note.



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● Eaton produces a variety of parts for the automotive industry. Its vast truck and car heater plant is one of the world's largest.

Late last year this entire heater plant was repainted according to COLOR DYNAMICS. Following the principles of the energy in color, focal colors were painted on operating parts of machinery and eye-rest colors on stationary parts to aid workers to see their tasks better and to reduce eye fatigue. Walls and ceiling were finished with morale-building colors to provide additional eye-rest areas.

Safety colors were used to reduce accident hazards.

● "As a result of repainting according to COLOR DYNAMICS", reports W. A. Mattie, superintendent of the Heater Division, "we have noticed improvement in operating efficiency, employee morale and general plant cleanliness."

"When our plant was a dull gray, workers seldom bothered to pick up small parts used in assembly operations. They were usually swept up and discarded. Today, employees are so proud of their clean surroundings they pick up these items, effecting worth-while savings for us."

● "By increasing our efficiency, COLOR DYNAMICS has helped us to cut manufacturing costs. We think the 20 percent reduction in absenteeism is also directly traceable to the new color plan. Nor have we had a single hour of lost time because of injury since we repainted."

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"NOT BOXES", chief cause of freight train delays, will be eliminated with Timken roller bearings. Maintenance time will be reduced because "Roller Freight" spends less time in the repair shop, more time on the road.



WITH AN "EYE-DROPPER APPETITE" for lubricants, "Roller Freight" can save the railroads up to 89% in lubricant costs. It cuts terminal inspection man-hours 90%. Starting resistance is reduced 88%, resulting in smoother starts and stops, and lower fuel bills.

COMPLETE ASSEMBLIES of cartridge journal box and Timken bearings for freight cars cost 20% less than applications of six years ago. And they soon pay for themselves. Cost analyses show that the added investment over friction bearings can be saved in as little as 39 months.

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